



# South East Asia Flow Measurement Conference 6-8 March 2012



NEL is delighted to announce the launch of the South East Asia Flow Measurement Conference. Building on ten years of experience delivering technical workshops and training courses in the region, NEL has developed this Conference to keep you informed of the latest developments in flow measurement technology.

The 2012 Conference is a completely new format to that previously held by NEL. The parallel sessions will run at the same time as the Technical Conference allowing delegates to pick and choose what they wish to attend and when.

Full information on the Conference can be found in the following pages by clicking on the tabs below. \*\* To return to this main page to select another button, click on the NEL logo at the top of each page. \*\*

[Conference Schedule](#)[Conference Overview](#)[Technical Conference](#)[Training Sessions](#)[Delegate Package](#)[How to Book](#)[Exhibition](#)[Venue](#)[Training Providers](#)

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In Association With:



Sole Official Publication:





# South East Asia Flow Measurement Conference 6-8 March 2012



## Conference Schedule

Timings for each event within the Conference Schedule below occur throughout the programme and set to allow for maximum networking between all delegates and exhibitors.

PARALLEL SESSION LOCATIONS			
↓ ↓ ↓ ↓			
<b>Tuesday 6 March (am)</b>			
<b>Technical Conference Day 1</b>  <b>JUNIOR BALLROOM</b>	Ultrasonic Theory, NEL  <b>SAKURA ROOM</b>	Understanding Financial Exposure from Measurement Uncertainty and Allocation Methods, <b>Kelton Engineering Ltd</b>  <b>LOTUS ROOM</b>	
<b>Tuesday 6 March (pm)</b>			
	Ultrasonic Practical, NEL  <b>SAKURA ROOM</b>		
<b>Wednesday 7 March (am)</b>			
<b>Technical Conference Day 2</b>  <b>JUNIOR BALLROOM</b>	Hydrocarbon Sampling and Auditing of Lab Analysis, <b>NuLab Limited &amp; NEL</b>  <b>ORCHID ROOM</b>	Measurement Uncertainty, NEL  <b>LOTUS ROOM</b>	
<b>Wednesday 7 March (pm)</b>			
	Ultrasonic Theory, NEL  <b>SAKURA ROOM</b>		
<b>Thursday 8 March (am)</b>			
<b>Open Manufacturers Sessions</b>  <b>JUNIOR BALLROOM</b>	Wet Gas & Multiphase, NEL  <b>BUNGA RAYA ROOM</b>	Measurement Uncertainty, NEL  <b>LOTUS ROOM</b>	Ultrasonic Practical, NEL  <b>SAKURA ROOM</b>
<b>Thursday 8 March (pm)</b>			
		Management of Measurement, <b>Kelton Engineering Ltd</b>  <b>LOTUS ROOM</b>	
<b>Colour Code Key:</b> <span style="display: inline-block; width: 15px; height: 15px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> <b>Technical Conference</b> <span style="display: inline-block; width: 15px; height: 15px; background-color: #ADD8E6; border: 1px solid black; margin-left: 20px; margin-right: 5px;"></span> <b>NEL Course</b> <span style="display: inline-block; width: 15px; height: 15px; background-color: #FFC0CB; border: 1px solid black; margin-left: 20px; margin-right: 5px;"></span> <b>Associated Trainer</b> <span style="display: inline-block; width: 15px; height: 15px; background-color: #ADD8E6; border: 1px solid black; margin-left: 20px; margin-right: 5px;"></span> <b>Open Event</b>			

CONFERENCE TIMINGS			
<b>½ Day AM Event Attendance:</b> 0815 – 0900 Registration 0900 Session Start <b>1030 – 1100 Refreshment Break</b> 1300 Session Close & Lunch	<b>½ Day PM Event Attendance:</b> 1230 Lunch (optional) 1300 – 1330 Registration 1330 Session Start <b>1500 – 1530 Refreshment Break</b> 1700 – 1730 Session Close	<b>Full Day Event Attendance:</b> Same Times as opposite except <b>1230 – 1330 Lunch</b>	<b>Manufacturer Session on 8<sup>th</sup>:</b> 0900 – 0940 1330 – 1410 0950 – 1030 1420 – 1500 1100 – 1140 1530 – 1610 1150 – 1230 1620 – 1700



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### **Addition to Conference:**

Manufacturers Session on Thursday 8<sup>th</sup> March is free to attend within the Junior Ballroom and will be a 40 minute presentation from each of the attending exhibitors showcasing their products and services.

### **Conference Overview**

The flexible structure of this event will encompass both theoretical and real-world experience. The technical programme draws on the experience and knowledge of globally recognised organisations. Highlights of the Conference will include:

- + A range of topical presentations relevant to the industry today
- + Parallel full and half-day topical training sessions
- + Associated training sessions delivered by Kelton Engineering, NuLab Limited, SGS Oil Gas and Chemicals and TransCanada Calibrations
- + Flexible attendance options with appropriate delegate fees
- + The opportunity to schedule attendance around work commitments
- + Manufacturers from around the world showcasing the latest technology within the industry

The 2012 Conference is a completely new format to that previously held by NEL. The parallel sessions will run at the same time as the technical conference allowing delegates to pick and choose what they wish to attend and when.

### **Why Should I Attend This Conference?**

- + Face up to industry challenges by equipping yourself with better technical knowledge and better sector understanding.
- + Hear topical industry debate and make informed decisions to shape the direction of your business.
- + Go global - meet the people who matter today in the market place of tomorrow.
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**Technical Conference**

In the field of hydrocarbon flow measurement, where measurements made have a high economic and environmental impact, it is important to stay ahead of developments in technology, regulation and practice. Pulling together and discussing the developments, issues and challenges affecting the industry in the South East Asia region will be key.

The Technical Conference will over two days cover a range of topical issues relevant to the industry today presented by world renowned leading experts.

Please note that the programme below is liable to change between now and the start of the Conference. Should any changes be made, the programme will be updated.

**Revised Technical Programme – 20/2/12**

**Tuesday 6 March**

0815 – 0900 Conference Registration Period  
[Foyer, Level 2](#)

0900 – 0910 **Conference Welcome Address**  
[Brian Millington, Director, NEL – UK](#)

0910 – 0930 **Keynote Address**

**Session 1 Subsea & Wet Gas**

0930 – 1000 **The Evaluation of Shortcut Flow Calculation Methods Case Study: Belanak Gas Injection Meter and Kerisi Subsea Gas Meter**  
[Nugroho Wibisono and Miftah Farid, ConocoPhillips Indonesia Inc. Ltd – Indonesia](#)

1000 – 1030 **How New Developments in Wet Gas Metering are Meeting Asia's Offshore Challenges**  
[Oyvind Bjorkhaug and Svein Erik Gregerson, Roxar Flow Measurement – Norway](#)

1030 – 1100 COFFEE & EXHIBITION  
[Level 2 Foyer](#)



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**Session 2    Sampling**

- 1100 – 1130    **Review of the Issues and Challenges with Pipeline Sampling**  
Emmelyn Graham, Ming Yang, Chris Mills, Richard Harvey,  
Neil Barton, Richard Paton & David Learmonth, NEL – UK
- 1130 – 1200    **Subsea Sampling for Production Optimization and Increased Oil and Gas Recovery**  
Mads Hjelmeland, Framo Engineering Asia Pacific Sdn Bhd – Singapore  
Bruno Pinguet, Schlumberger – Venezuela  
Eivind Vethe and Michael Thomas Smith, Framo Engineering AS – Norway
- 1200 – 1230    **The Design and Uncertainty of Crude Oil Automatic Sampling Systems**  
Daniel Khong, Cameron Jiskoot Quality Systems – Singapore
- 1230 – 1330    LUNCH  
Grand Ballroom 3, Level 2 Foyer

**Session 3    New Developments in Technology**

- 1330 – 1400    **Validation of the Same Multiphase Flow Meter in Multiphase and Wet Gas Conditions**  
Bruno Pinguet, Schlumberger – Venezuela  
Viraj Konde, Vishal Dhanuka, Vincent Pequigont and Hamza Matallah, Schlumberger – India
- 1400 – 1430    **The Effect of 4 Tubes on the Accuracy and Repeatability in Coriolis Massflow Measurement**  
Michael Nuber, Christof Huber, Martin Anklin and Marcel Bruan, Endress+Hauser Flowtec AG – Switzerland  
Alfred Reider and Wolfgang Drahm, Endress+Hauser GmbH & Co KG – Germany
- 1430 – 1500    **Evaluation of the 3-Inch Haimo MPFM in DOD**  
Liang Chena and Dali Gong, Daqing Oilfield Research Institute – China  
Panny Y. Pan and Charles J. Chen, Haimo Technologies Inc. – China



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1500 – 1530 COFFEE & EXHIBITION  
[Level 2 Foyer](#)

**Session 4 General Metering**

1530 – 1600 **Installation of Master Meter on the Multi Stream and Multi Product Metering System to Reduce the Product Off Spec and Proving Time**  
[Mohammad Najib, PT. YAUN SEJATI – Indonesia](#)

1600 – 1630 **Wet Gas Sampling in the Upstream Area**  
[Philip A. Lawrence, Cameron Valve and Measurement – USA](#)

**Wednesday 7 March**

0830 – 0930 Technical Conference Registration Period  
[Foyer, Level 2](#)

**Session 5 Diagnostics**

0930 – 1000 **USM Diagnostics**  
[Craig Marshall, NEL – UK](#)

1000 – 1030 **The Power of Different Diagnostic Concepts Examined at Practical Examples**  
[Thomas Horst, Volker Herrmann and Koos van Helden, SICK AG – Germany](#)

1030 – 1100 COFFEE & EXHIBITION  
[Level 2 Foyer](#)

**Session 6 Multiphase & Sampling**

1100 – 1130 **Fouling and Erosion Effects in Multiphase Meters**  
[Neil Barton, NEL – UK](#)  
[Klaus Zanker, Letton-Hall Group – USA](#)  
[Gordon Stobie, ConocoPhillips – USA](#)



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- 1130 – 1200 **Representative Sampling of Multiphase Products Begins with Good Mixing – Dynamic Pipeline Mixing**  
Nigel Pockett, Doedjins Controls BV – The Netherlands
- 1230 – 1230 **MPFM Response and Validation in Heavy Oil Wells**  
Hui Liu, Ju Zheng and Zhihua Zhang, CNOOC – China  
Charles J. Chen and Panny Y. Pan, Haimo Technologies Inc. – China
- 1230 – 1330 LUNCH  
Grand Ballroom 3, Level 2 Foyer
- Session 7 Allocation & Accuracy**
- 1330 – 1400 **Key Points Regarding the Allocation Metering of Natural Gas and Condensate in the Upstream Area**  
Philip A. Lawrence, Chairman of ISO TC193 SC#3 USA & Convenor of WG1 – Natural Gas Allocation Measurement – USA
- 1400 – 1430 **Fiscal Allocation: A New Endeavour for Multiphase Flowmeter**  
Bruno Pinguet, Schlumberger – Venezuela  
Nils Vågen, Michael Smith and Eivind Vethe, Framo Engineering – Norway
- 1430 – 1500 **How Accurate are Ultrasonic Flowmeters in Practical Conditions: Beyond the Calibration**  
Jankess Hogendoorn, Herman Hofstede, Peter van Brakel and André Boer, KROHNE – The Netherlands
- 1500 – 1530 COFFEE & EXHIBITION  
Level 2 Foyer
- Session 8 Developments in Gas & Ultrasonic Metering**
- 1530 – 1600 **Considerations on the Changes in the Inner Pipe Wall Quality on the Validity of the Calibration and the Measuring Accuracy of Ultrasonic Gas Flow Meters**  
Alexander Jakschik, Volker Herrmann, Toralf Dietz and Koos van Helden, SICK AG – Germany



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- 1600 – 1630 **Developments in Venturi Meter Diagnostics for Dry and Wet Gas Meters**  
Jennifer Ayre, Swinton Technology – UK  
Ben Glover, Centrica – UK  
Mohd Hafidz, Swinton Technology Asia Pacific – Malaysia  
Richard Steven, DP Diagnostics – USA
- 1630 – 1700 General Open Discussion
- 1700 CLOSING SPEECH

### Members of the Technical Committee

The Committee have input to the content and direction of the technical presentations of the main Conference. Presentations selected by the Committee are based on their relevance to industry and the quality of content.

- + Mr Alick MacGillivray (Chairman), NEL
- + Mr Arumugam Amawoty, Sarawak Shell Berhad
- + Mr Richard Britton, Saudi Aramco
- + Mr M Nizam B Parnoh, PMU PETRONAS
- + Ir Hj Ahmad Khairiri Hj Abdul Ghani, PETRONAS Carigali Sdn Bhd
- + Dr Bruno Pinguet, Schlumberger
- + Mr Jason Yew, KROHNE Oil & Gas (M) Sdn Bhd



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### Training Sessions

Topical training sessions from NEL in association with Kelton Engineering and NuLab Limited will run in parallel to the Technical Conference providing maximum knowledge sharing throughout the duration of the Conference.

Details on each of the sessions can be found below. Further information will be posted in due course.



### Hydrocarbon Sampling and Auditing of Lab Analysis

Pipeline sampling and laboratory analysis are a crucial part of metering, measurement and hydrocarbon accounting. Sampling and sample preparation are critical to the accuracy of analysis results. This course has been designed specifically for metering engineers and is intended to provide an insight into the why, what and how of sampling, as well as an overview of analytical techniques that are carried out within the laboratory. Topics covered include wet gases, multiphase, water-in-oil and oil-in-water sampling. The importance of representative sampling will be discussed as shall the criticality of correct sample preparation. Using a baseline of International Standards and 30 years industry experience, this course provides an opportunity to learn how and where sampling should be performed, to what really goes on within laboratories and how Metering Engineers can carry out effective audits of the testing process from obtaining the sample through to reporting of final results.

### **KELTON** Management of Measurement

Effective and reliable oil and gas measurement is dependent on many factors, such as consideration of the purpose and required uncertainty of the measurement and measurement system design and manufacture, in the initial phase.


Once the system is installed and commissioned the focus turns to effective operation and management of the system, and here the requirements are even longer! Operating procedures, calibration/verification, reporting, documentation, data management and security, software control, handling mis-measurements and dispensations, and auditing are all key components of an effective approach to management of measurement.



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This short course covers each of these key areas in turn and provides the delegate with an understanding of the importance of each area, together with guidance on good practice in each area.

 **Measurement Uncertainty**

This training course will cover the main aspects of measurement uncertainty in the oil and gas industry. Delegates will learn the background to measurement uncertainty, the benefits of carrying out uncertainty analysis and the skills required to calculate the uncertainty of measurement systems. A case study will then be used to show how these skills can be used in real world applications in the oil and gas industry.

 **Ultrasonic Practical**

This half-day interactive course allows delegates to spend time on a demonstration rig where they will learn to correctly install a clamp-on ultrasonic flowmeter for measurement in water. The secondary diagnostic information generated by ultrasonic meters will be discussed and delegates will be able to use these parameters to diagnose common measurement problems through the use of real world examples.

 **Ultrasonic Theory**

This half-day course combines a detailed introduction into the theory of ultrasonic flowmeters and common problems found in industry. The course delegates will gain an increased understanding on how measurements are derived and what the advantages of using ultrasonic meters are compared with traditional metering techniques. They will also gain knowledge of the factors affecting performance of ultrasonic meters to ensure their own meters have the maximum accuracy.



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**KELTON®** Understanding Financial Exposure from  
Measurement Uncertainty and Allocation Methods

In systems with multiple fields custody transfer and allocation measurement systems are effectively cash registers for the Operators involved. Consequently, measurement uncertainty has a direct influence on the level of financial exposure experienced by each Operators in the system. Further, the method of allocating products between different fields, and the equity levels of the Operators in each field can also significantly affect the exposure of each Operator.

This short course looks at the concepts of measurement uncertainty and the cost/benefit of different levels of measurement uncertainty. It goes on to consider the importance of measurement uncertainty and allocation methods in multiple field systems. Methods for analysing the financial exposure in such systems will be presented and discussed, together with examples from real life systems. The examples will cover systems that include export metering, allocation metering multiphase metering and well testing, together with pro-rata (reconciliation) allocation and “by-difference” allocation.



**Wet Gas & Multiphase Training Course**

The demand to measure multiphase and wet gas flows is increasing in the oil and gas industry worldwide. To meet this demand, there is a requirement for engineers to understand the complexities of multiphase and wet gas flows, effective metering techniques and flow assurance strategies.

This interactive training course aims to provide an extensive overview of multiphase and wet gas flow metering to meet these requirements and encourage discussion on issues encountered and future challenges.



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### Delegate Package

Prices start from \$410 and final cost will depend on final selection.

Delegate registration fee includes:

- Attendance at selected event(s)
- Delegate hand-out packs
- Electronic copy of the technical conference proceedings
- Printed hand-outs will be provided for training sessions options
- Complimentary wifi
- Lunch/refreshments

Accommodation and evening meals are **not** included in the delegate registration fee. Special rates have been agreed with the InterContinental Kuala Lumpur. Further details can be found in **Venue** section above.

**Please note training courses have limited places and bookings will be taken on a first come first served basis.**

### How to Book

Payment is required to be made by credit card via the on-line booking system at [www.tuvnel.com](http://www.tuvnel.com)

For any enquiries please contact:

Events Team  
NEL  
EAST KILBRIDE  
Glasgow, G75 0QF  
UNITED KINGDOM

Tel: +44 (0)1355 272858



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**Exhibition**

Manufacturers from around the world will be in attendance showing off the cutting-edge equipment and services that will define the future of your business.

All timings throughout the Conference have been scheduled to start and finish at the same time including refreshment breaks to allow maximum networking opportunities.

Manufacturers currently exhibiting at the Conference include:





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Venue

**InterContinental Kuala Lumpur**

165, Jalan Ampang  
50450 Kuala Lumpur  
Malaysia

Tel : +60 3 2161 1111

Fax : +60 3 2161 1122

Email : [info@intercontinental-kl.com.my](mailto:info@intercontinental-kl.com.my)

Website : <http://intercontinental-kl.com.my>



**Location:** **InterContinental Kuala Lumpur** is conveniently located along the Jalan Ampang, in the heart of Kuala Lumpur's commercial shopping and entertainment district.

The hotel which is just a few minutes walk away from the landmark of Kuala Lumpur City Centre (KLCC) and the Petronas Twin Towers, two of the world's tallest buildings.

**Accommodation:** Accommodation and evening meals are no longer offered as part of exhibitor or delegate packages.

If you wish to book accommodation at the InterContinental Kuala Lumpur, a special link has been created directly to the hotel's reservation website for delegates attending the event.

Link: <http://www.ichotelsgroup.com/intercontinental/en/gb/reservations/dates-preferences/kualalumpur>

**Rates:** A room rate of MYR 550 plus taxes per night has been agreed with the hotel please note that the **Group Code is E44** when asked. The rates quoted do not include service charges or Government taxes.

Should you encounter any problems, please contact the hotel directly:

Ms Joan Ng, Reservation Manager – [joan.ng@intercontinental-kl.com.my](mailto:joan.ng@intercontinental-kl.com.my), quoting Group Code **E44**



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**Training Providers**

Further information on each of the companies noted above can be found on the following pages.

Click on each logo to visit the company website directly.



**FM<sup>2</sup>P<sup>®</sup>.net**  
KELTON<sup>®</sup> FISCAL METERING MANAGEMENT PACKAGE

**KELTON<sup>®</sup>**

KELTON<sup>®</sup> is an Independent, UKAS Accredited Company, specialising in Flow Measurement Consultancy and associated Software.

KELTON<sup>®</sup> have an outstanding reputation in the provision of FEED Studies, Submissions to Government Agencies, Auditing of Flow Measurement Systems/Allocation Systems/Hydrocarbon Laboratories, Uncertainty Models and Analysis, Training, Operations and Maintenance Procedures, Project Support/Consultancy, Operational Support/System Management, Validation and Flow Measurement related Software.

KELTON<sup>®</sup> are a Microsoft Certified Partner and the software products include packages for the Management of Measurement and bespoke Allocation Software:



Management of Measurement Package



Network and internet connectivity



Interactive flow measurement training package



General signal viewing package



Electronic logging package



Records, verifies and saves calibration data



Audit management system



Turbine meter regression analysis and control



Flow calculation software



Documentation control package



Uncertainty package



Powerful Unit Conversion Application

## CAPABILITY OVERVIEW

# 15 OILFIELD OPTIMISATION 13 MEASUREMENT MAXIMISATION 19 SERVICES SOLUTION

SGS is a truly independent inspection company that provides services meeting the Oil & Gas Industry global needs for traceable measurement of hydrocarbons produced and transported. SGS expertise in dynamic measurement is also used to provide traceable measurement of environmental discharges to air and sea.

SGS undertakes metering projects for customers throughout the World including governments, National Oil Companies (e.g. Sonangol, Petronas, Saudi Aramco, Adco, CNOOC, South Oil Company), International Oil Companies (BP, Shell, ENI, ExxonMobil, LukOil) as well as independent oil companies, engineering companies and metering system manufacturers.

### FISCAL & ALLOCATION METERING

Oil and Gas Producers need to measure accurate "quantities of hydrocarbons won and saved" in order to:

- Produce Bill of Lading and Daily Production Reports for revenue generation
- Report production to shareholders and partners in production projects
- Calculate royalty payments and taxation applicable

Such allocation is based on quality and quantity of hydrocarbons delivered to the shared facilities and should take account of water and other impurities within product delivered.

The quantities of hydrocarbons reported may be used for calculating royalty payments, taxation payable and/or determining productivity from different fields

Measurement of hydrocarbons for the purpose of determining the share of overall production attributable to different producers is generally referred to as **Allocation** Metering.

### SGS CONSULTANCY SERVICES

SGS provides expertise to design, selection, testing, validation and certifying Fiscal and Allocation metering systems as compliant with relevant standards. Consequences of non-compliance may include:

- Loss of revenue
- Penalties related to non-compliance with tax reporting requirements
- Rework to revalidate, upgrade or replace equipment or systems
- Reputation damage

SGS added value includes:

- Reputation as technical expert in metering (IAVT)
- Independence from metering manufacturers, vendors, agents
- Resource availability
- Global network of operations
- Project Management capability
- Well testing and Multiphase services
- Traceable portable analytical services for GOR/PVT
- Training and competency

### SGS CALIBRATION SERVICES

**UKAS accredited** on-site or off-site traceable calibration of meters, meter provers and measurement related instrumentations.

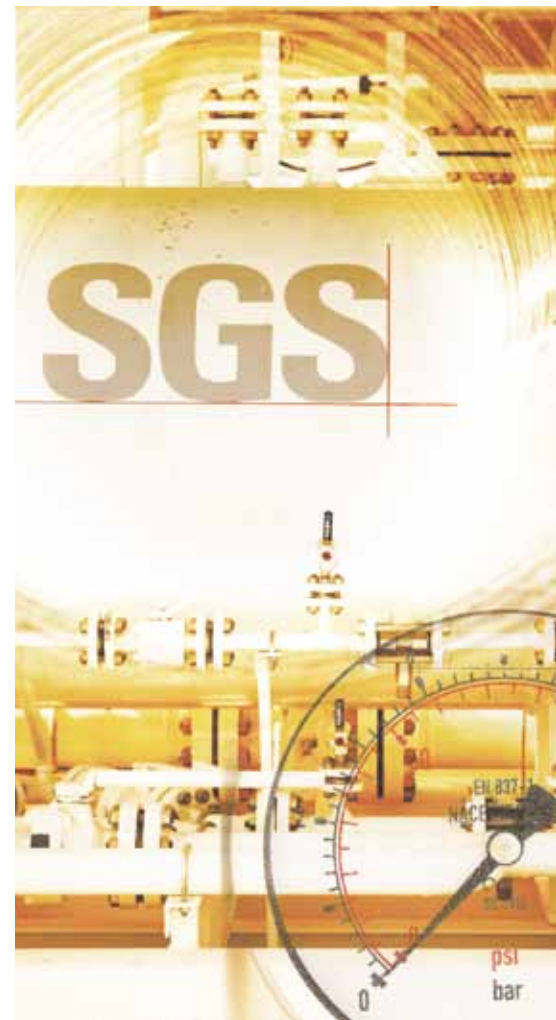
- SGS operates the world's largest pool of equipment to calibrate meters and meter provers at process conditions
- Extensive network of calibration capabilities

### SGS OPERATIONS SUPPORT SERVICES

SGS provides customers with a range of services to support operations including:

- Turnkey outsourcing of metering operations and maintenance
- Recertification, Calibration and Maintenance ■

For more information, please contact Graham Millar at [Graham.Millar@sgs.com](mailto:Graham.Millar@sgs.com)



Certifying Your Future

Remote Calibration Witnessing

# TransCanada Calibrations

## Overview of Specialized Measurement Services



TransCanada Calibrations is a measurement services organization that offers High Pressure Natural Gas Meter Calibration and Technical Measurement Assistance to a international list of corporations in the Energy Sector - Transmission, Distribution, LNG, and Power Generation. TransCanada Calibrations measurement is traceable to Primary National Standards, and is recognized by Measurement Canada, the National Research Council of Canada, NMI of Holland and NIST of the USA through measurement inter-comparison; and operates to AGA 9, ISO 9001 and ISO 17025 standards.

TransCanada Calibrations is centrally located in North America near Winnipeg, Manitoba a continental logistics freight hub with direct convenient access to an international airport.

### High Pressure Natural Gas Flow Meter Calibration Capability

- ↗ Ultrasonic Meters - NPS 3 to NPS 42 ANSI 600, 900, 1500, 2500 all manufacturers
- ↗ Turbine Meters - NPS 4 to NPS 42 ANSI 600, 900, 1500, 2500 all manufacturers
- ↗ Clamp-on Meters - Transfer calibration service available for all manufacturers
- ↗ Orifice and Differential Pressure Metering Technologies - All manufacturers
- ↗ **Flow Measurement:**

Flow Rate	Measurement Uncertainty, k=2
1,000 to 55,000 m <sup>3</sup> /h	0.20 %
200 to 1,000 m <sup>3</sup> /h	0.24 %
60 to 200 m <sup>3</sup> /h	0.30 %

### Meter and Instrument Repair:

- ⇒ Ultrasonic & Turbine Meter Repair - All major manufactures, in-house parts
- ⇒ Pressure and Temperature - Transmitters, transfer standards, and devices

### Transportation and Customs Services:

- ⇒ Domestic and international meter transportation management

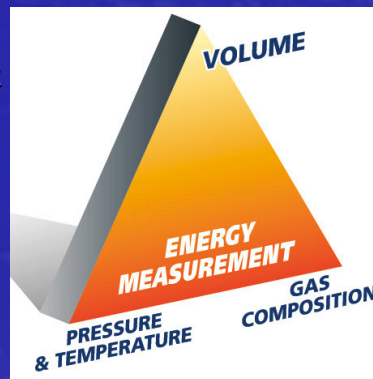
### Technical Measurement Services:

- ↗ Technical Assistance and Meter Trouble shooting
- ↗ Measurement System Commissioning and Audit
- ↗ Technical review of installation design

TransCanada Calibrations Ltd.

[www.tccalibrations.com](http://www.tccalibrations.com)

Service Direct: (204) 878-4373 ext 221





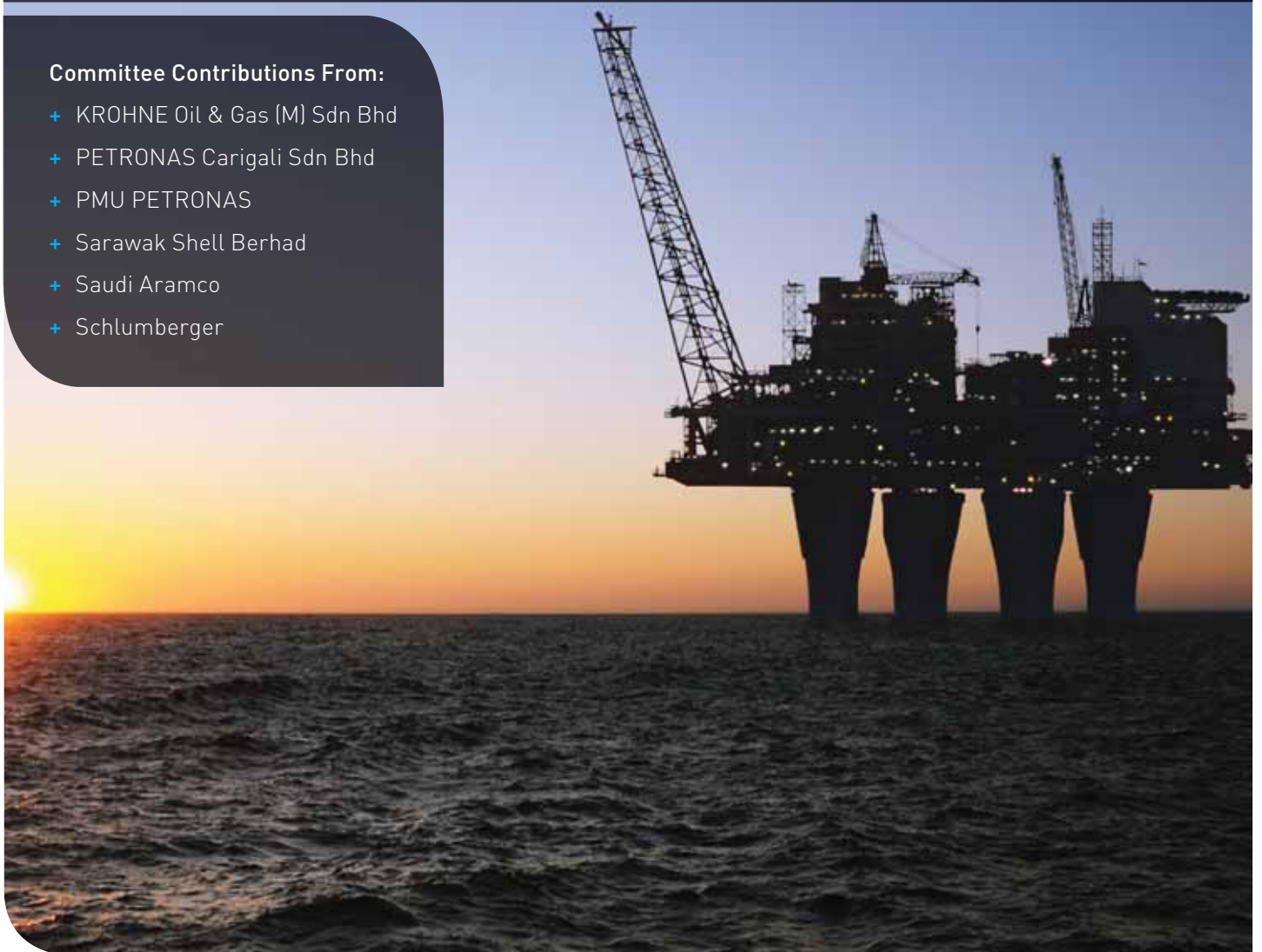
**nel**  
technology for life

# South East Asia Flow Measurement Conference 6–8 March 2012

InterContinental Kuala Lumpur, Malaysia

## Committee Contributions From:

- + KROHNE Oil & Gas (M) Sdn Bhd
- + PETRONAS Carigali Sdn Bhd
- + PMU PETRONAS
- + Sarawak Shell Berhad
- + Saudi Aramco
- + Schlumberger



In Association With:

**KELTON**<sup>®</sup>

**nulab**<sup>®</sup>  
laboratory solutions

**SGS**

**TRANSCANADA**  
CALIBRATIONS

National  
Measurement  
System

Sole Official Publication:

**PetroMin**

**TUV**<sup>®</sup>

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In the field of hydrocarbon flow measurement, where measurements made have a high economic and environmental impact, it is important to stay ahead of developments in technology, regulation and practice. Pulling together and discussing the developments, issues and challenges affecting the industry in the South East Asia region will be key. This Conference will get you ahead of the game.

### Introducing the South East Asia Flow Measurement Conference

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Highlights of the Conference will include:

- + A range of topical presentations relevant to the industry today
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- + Associated training sessions delivered by Kelton Engineering, NuLab Limited, SGS Oil Gas and Chemicals and TransCanada Calibrations
- + Panel discussion sessions
- + Flexible attendance options with appropriate delegate fees
- + The opportunity to schedule attendance around work commitments
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- + Make fast informed choices about the cutting-edge equipment and services that will define the future of your business.

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- + Mr Richard Britton, Saudi Aramco
- + Mr M Nizam B Parnoh, PMU PETRONAS
- + Ir Hj Ahmad Khairiri Hj Abdul Ghani, PETRONAS Carigali Sdn Bhd
- + Dr Bruno Pinguet, Schlumberger
- + Mr Jason Yew, KROHNE Oil & Gas (M) Sdn Bhd

## Conference Schedule

PARALLEL SESSIONS				
↓ ↓ ↓ ↓ ↓				
<b>Tuesday 6 March (am)</b>				
<b>Technical Conference Day 1 +</b>	Fundamentals of Flow Measurement, NEL	CFD in Oil & Gas, NEL	Understanding Financial Exposure from Measurement Uncertainty and Allocation Methods, <b>Kelton Engineering Ltd</b>	Ultrasonic Theory, NEL
		<b>Tuesday 6 March (pm)</b>		
		LNG Metrology – Current and Future Technology, NEL	IAVT (Independent Authority Verification & Testing) for All Categories of Hydrocarbon Measurement, <b>SGS Oil Gas and Chemicals</b>	
<b>Wednesday 7 March (am)</b>				
<b>Technical Conference Day 2 +</b>	Hydrocarbon Sampling and Auditing of Lab Analysis, <b>NuLab Limited &amp; NEL</b>	Measurement Uncertainty, NEL		Ultrasonic Meter Calibration and Related Diagnostics for Operation, <b>TransCanada Calibrations</b>
		<b>Wednesday 7 March (pm)</b>		
		CFD in Oil & Gas, NEL		
<b>Thursday 8 March (am)</b>				
Multiphase & Wet Gas Training Course, NEL	Measurement Uncertainty, NEL		Well Testing & MPM (Multiphase), <b>SGS Oil Gas and Chemicals</b>	Ultrasonic Practical, NEL
	<b>Thursday 8 March (pm)</b>			
	LNG Metrology – Current and Future Technology, NEL	Management of Measurement, <b>Kelton Engineering Ltd</b>		Ultrasonic Meter Management and Field Performance Monitoring, <b>TransCanada Calibrations</b>

Colour Code Key: ■ Technical Conference □ NEL Course ■ Associated Trainer □

+ Full technical conference programme to be announced in due course. Further detail on the above including scheduled timing can be found at [www.tuvnel.com/events](http://www.tuvnel.com/events)

### In Association With

**KELTON** have an outstanding reputation in the provision of FEED Studies, Submissions to Government Agencies, Auditing of Flow Measurement Systems/ Allocation Systems/Hydrocarbon Laboratories, Training, Operations and Maintenance Procedures, Project Support/ Consultancy, Operational Support/System Management and Flow Measurement related Software.

**NuLab** is a leading provider of Laboratory Training, Consultancy and Lab Management Services to the International Oil and Gas Industry. The company can offer laboratory training courses and is accredited by the Energy Institute as an approved training provider. Our trainers and consultants provide specialist laboratory related knowledge to our clients through an in-depth understanding of oil field production chemistry and analytical laboratory issues.

**SGS** is the world's leading inspection, verification, testing and certification company. Recognised as the global benchmark for quality and integrity, we employ over 64,000 people and operate a network of more than 1250 offices and laboratories around the world.

**TRANS CANADA CALIBRATIONS** is a Measurement services company that offers Internationally recognized High Pressure Natural Gas Meter Calibration and Gas Measurement Technical Assistance to Meter manufacturers, Engineering Companies, Integrators, Fabricators, and Pipeline Operators in the Natural Gas Energy Sector – Transmission, Distribution, LNG, and Power Generation.



## Conference Fees

Prices start from \$410. Please note training courses have limited places and bookings will be taken on a first come first served basis.

Delegate registration fee includes attendance at selected event(s), delegate pack, proceedings, complimentary wifi and lunch/refreshments.

Accommodation and evening meals are not included in the delegate registration fee. An agreed rate of MYR 550 plus taxes per night has been agreed with the InterContinental Kuala Lumpur. Further details can be found at [www.tuvnel.com](http://www.tuvnel.com)

## Exhibition and Sponsorship Opportunities

Suppliers of equipment and services are invited to sponsor and exhibit at the conference. This will give your company a profile in the final programme in addition to a stand within the exhibition area of the Conference. For further details please contact us.

## Registration and Enquiries

Bookings can be made online at [www.tuvnel.com](http://www.tuvnel.com)

Payment required by credit card only. For any enquiries please contact the [Events Team](mailto:events@tuvnel.com) on +44 (0)1355 272858 or [events@tuvnel.com](mailto:events@tuvnel.com)

## About NEL

NEL is a leading provider of pipeline fluid management services to the global petroleum industry. We have an impressive track record in the development, design and application of leading-edge technology. We provide consulting, training, R&D and laboratory testing services in the following areas:

- + Flow measurement (oil, gas, multiphase and flow assurance)
- + Thermal engineering & heat transfer
- + Erosion assessment and validation
- + Flow calibrations in the UK national test facility
- + Environmental (produced water, oil-in-water, emissions and carbon capture & storage)

NEL is a trading name of TUV SUD NEL Ltd, a company of the TÜV SÜD Group, the leading global technical services organisation. Around 16,000 employees are represented at more than 600 locations throughout the world.

For further details on how NEL can help your business, please visit [www.tuvnel.com](http://www.tuvnel.com) or contact us directly.

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