

Registration

6th North American Conference on

MULTIPHASE TECHNOLOGY

**Banff, Canada
4–6 June, 2008**

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BHR Group is the world's leading organiser of specialist Multiphase Conferences. Its series of International Events began in Europe in 1983.

Introduction

In collaboration with Neotechnology Consultants of Calgary, Canada, and Tulsa University Fluid Flow Program, the Multiphase conference brings together experts from across the American Continents and Worldwide. BHR Group has been running Multiphase conferences in Europe for 23 years and has seen the technology develop from its theoretical beginnings to its current maturity where it now offers a practical technological solution for many transportation problems. The developments, which have taken place in the oil and gas industry using multiphase solutions, have enabled the industry to improve its production performance, extend its operations and address previously insoluble problems. The lessons learnt, the modelling techniques developed and the practical experiences of its users will be of value to engineers in a range of industries including oil and gas, process, chemicals, mining, water and power industries.

BHR Group's conference has been the premier international event providing delegates with the opportunities to discuss new research and developments, to consider innovative solutions and to explore technology transfer between industries. Its technical quality makes this event an essential diary date for all engineers concerned with any aspect of multiphase technology.

Who Should Attend

The conference will benefit anyone engaged in the application, development and research of multiphase technology for the oil and gas industry. Applications in the oil and gas industry will also be of interest to engineers from other industries for whom multiphase technology offers a novel solution to their problems.

The conference will also be of particular value to designers, facility and operations engineers, consultants and researchers from operating, contracting, consultancy and technology companies.

Opening Address

We have great pleasure in announcing that James P Brill, Professor Emeritus and Research Professor of Petroleum Engineering, The University of Tulsa and Member, National Academy of Engineering will give the opening address of the conference sharing his knowledge and expertise of the industry.

Language

The language of both the conference and the published proceedings will be English.

SLURRY HANDLING COURSE, CALGARY, 2-3 JUNE 2008

In association with the Multiphase conference, BHR Group is running a 2-day course on Slurry Handling immediately prior to the conference. This training course will be of interest to all those who have to design and specify plant and systems to handle solids in liquids, such as sand recovered from wells and for use in fracturing fluids, oil sands tailings, hydrates, rock cuttings in drilling muds, well-cementing slurries, etc. The course covers the measurement of physical properties of different slurry types and its application to the design of pipelines for both "non-settling" and settling slurry flows. It will also cover on-line slurry instrumentation for flowrate and solids concentration, pipe clearing methods, valves, wear, and slurry pump selection and sizing.

The course will take place at Neotec in downtown Calgary. For more information, and a booking form, please visit the BHR Group website: www.bhrgroup.com, or contact Dr Nigel Heywood on +44 1234 750422, e-mail: nheywood@bhrgroup.co.uk.

Venue, Timing and Registration

The technical sessions will be held at the Banff Park Lodge Hotel, Banff, Alberta, Canada.

There will be a registration drinks reception which will take place on the evening of Tuesday 3rd June from 5 – 6:30pm.

The morning registration will take place on Wednesday 4th June from 8 – 9am.

Refreshments and lunch will be served daily, in accordance with the conference programme

Travelling to Canada

The major gateway to Banff is Calgary International Airport. Coaches and vans operate from the airport directly to Banff Park Lodge (see www.banffairporter.com or www.calgaryairport.com for details). All major rental car companies are available.

The Banff Tourist Board's website has detailed information on travel to, from and around the city at Banff Lake Louise Tourism Bureau.

Accommodation

Delegates are responsible for booking their own accommodation in Banff.

However, an allocation of rooms has been reserved at a special discounted rate at:

Banff Park Lodge Hotel
222 Lynx St, PO Box 2200,
Banff, AB, T1L 1K5, Canada

Delegates should make their reservations directly to the hotel, quoting reference 'June 2008 BHR conference', before **Saturday 19th April 2008**.

Any unconfirmed accommodation in our allocation will be released on **19th April 2008** for general sale – therefore we cannot guarantee availability or the discounted price after this date.

All hotel bookings must be guaranteed by credit card.

Please see the booking form for further details.

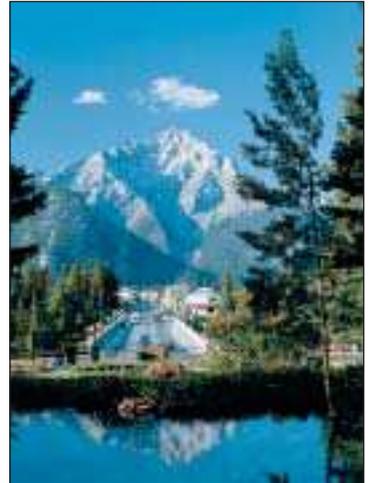


Photo courtesy of Banff Lake Louise Tourism

Social Functions

Admission to the social functions is included in the delegate fee. Additional tickets for the gala dinner are available to purchase from the conference organisers.

Registration Drinks

Arrive in Banff on Tuesday to register in the evening and meet your fellow delegates and technical committee members over a drink.

Welcome Reception

Renew friendships and meet new contacts at a welcome reception on Wednesday evening. Drinks and canapés will be served.

Gala Dinner

The conference dinner will be held on the evening of Thursday 5th June 2008 at the Canmore Nordic Centre.

Acknowledgements

We would like to thank the Technical Advisory Committee, the panel of referees, the supporting organisations, media partners and sponsors for their help and support.

Supporting Organisations

- TUFFP
- Neotechnology Consultants Ltd.

Sponsoring Organisations

BHR Group would like to express its sincere thanks to the sponsoring organisations:

- Neotechnology Consultants Ltd.
- Bornemann GmbH
- SPT Group

Other organisations wishing to participate in the sponsorship of the conference are asked to contact the conference organiser.

Technical Advisory Committee

Chairman

Dr C Sarica	TUFFP, The University of Tulsa, USA
Dr E F Caetano	Petrobras, Brazil
Dr X D Cai	Saudi Aramco, Saudi Arabia
Dr T J Danielson	ConocoPhillips, USA
Dr N Heywood	BHR Group Limited, UK
Dr S Kashou	Chevron Corporation, USA
Dr E Kuru	University of Alberta, Canada
Dr E Alsafran	University of Kuwait, Kuwait
Dr N McMullen	BP America, USA
Mr G Shoup	BP America, USA
Mr S Smith	Neotechnology Consultants Limited, Canada

Senior Consultants

Dr G Gregory	Neotechnology Consultants Ltd., Canada
Professor J Brill	The University of Tulsa, USA

Enquiries

Enquiries should be addressed to:

The Conference Organiser	Tel: +44 (0)1234 750422
BHR Group Limited	Fax: +44 (0)1234 750074
The Fluid Engineering Centre	E-mail: conforg7@bhrgroup.co.uk
Cranfield	Web: www.bhrconferences.com
Bedfordshire MK43 0AJ, UK	

PROVISIONAL PROGRAMME

For guidance only and may be subject to change

Flows: Flow Assurance

Experimental observations and modeling discussions on wax deposition using a bench top flow facility

G Sucre, C Sarica, H Chen, M Volk, E Dellecase, University of Tulsa, USA

A methodology for fast thermodynamic computation of mixed composition streams: Application to subsea pipeline modeling

P Dhoorjaty, D Erickson, P Parthasarathy, Multiphase Solutions Inc., USA

Effect of polymer drag reducing agent on immiscible oil - water horizontal flow

M Al-Yaari, B Abu-Sharkh, King Fahd University of Petroleum & Minerals, Saudi Arabia; A Soleimani, Schlumberger Dhahran Research Center, Saudi Arabia; A Al-Sarkhi, Tulsa University, USA

Equipment – Keep them Moving

Measurement of reference velocity vector for four-sensor conductance probes using orthogonal, high speed cameras

S Pradhan, G Lucas, X Zhao, University of Huddersfield, UK

Pressure build-up and gap flows in multiphase screw pumps

A Scharf, G Aleksieva, D Mewes, University of Hannover, Germany; J Lewerenz, M Reichwage, Bornemann Pumps, Germany

Simultaneous use of HSP and core flow for the artificial life of heavy oils

A C Bannwart, A P Oliveira, G C M Pena, State University of Campinas, Brasil; V Estevam, PETROBRAS E&P, Brasil

Brown field revitalization using small twin-screw multiphase pumps

D Müller-Link, G Rohlfing, Joh. Heinr. Bornemann GmbH, Germany

Flows: Stratified Flow

Stability analysis of the Biberg pre-integrated stratified two-phase flow model including profile factors

H Holmås, D Biberg, SPT Group Norge AS, Norway; G Johnson, R Schulkes, StatoilHydro ASA, Norway; T Sira, Institute for Energy Technology, Norway

Comparison of two phase pipe flow experiments with a roll wave model and a commercial simulator

A De Leebeek, O J Nydal, Norwegian University of Science and Technology, Norway; G W Johnson, Norsk Hydro, Norway; J I Monsen, A Goldszal, TOTAL E&P NORGE AS, Norway

Flow Simulation – New Approaches

Advanced simulation of gas-liquid pipelines

*P Andreussi, University of Pisa, Italy; M Bonizzi, TEA Sistemi Spa, Italy;
A Di Lullo, M Margarone, S Taddei, A Scotti, ENI E&P, Italy*

Multi-dimensional simulations of multiphase flow in vertical risers and horizontal pipes

*H Laux, E Meese, S Mo, S T Johansen, SINTEF, Norway; K M Bansal, T J Danielson,
ConocoPhillips, USA; A Goldszal, J I Monsen, TOTAL, Norway*

Application – What is New?

Recent advances in slug flow modelling

*P Adames, S Smith, Neotechnology Consultants Ltd, Canada;
W Svrcek, University of Calgary, Canada; B Young, University of Auckland, New Zealand*

The advance towards WANDA multi-phase: Simulations of gas dynamics in a multi-phase pipeline

A G T J Heinsbroek, H Hartmann, Deltares / Delft Hydraulics, The Netherlands

Use of multiphase analysis to enhance production operations in the Lobo Gas Gathering System

T J Danielson, Q T Bui, ConocoPhillips Co., USA

Application – Heavy Oil

Experimental study on core-annular flow behaviour with the injection of gas in horizontal pipe

*D Strazza, B Grassi, P Poesio, Università degli studi di Brescia, Italy;
M Margarone, ENI E&P, Italy*

Effects of high oil viscosity on drift velocity for horizontal pipes

B Gokcal, A S Al-Sarkhi, C Sarica, The University of Tulsa, USA

Flow Simulation – Slugs to Grow or Not to Grow!

Slug frequency in gas/liquid horizontal flow

E Al-safran, Kuwait University, Kuwait

A growth model for dynamic slugs in gas/liquid horizontal pipes

U Kadri, R F Mudde, R V A Oliemans, Delft University of Technology, The Netherlands

Effect of upstream conditions on the two phase flow in the large diameter vertical pipe

S F Ali, H Yeung, Cranfield University, UK

Equipment – SAGD

The combination of ESP and Vx technology towards SAGD well production optimization

B G Pinguet, E Guerra, C Drever, Schlumberger, Canada

The importance of fluid property knowledge in multiphase metering applied to SAGD well production

D Hompoth, Suncor Energy, Canada; B G Pinguet, Schlumberger, Venezuela;

E Guerra, Schlumberger, Canada

Flows: Solids

Sand transport characteristics in water flow and two-phase air/water segregated and intermittent flow regimes in horizontal and uphill pipelines

S Al-lababidi, W Yan, H Yeung, Cranfield University, UK; P Sugrman, P Fairhurst, BP E&P, UK

Solids re-entrainment in an inclined pipe using air-water flow

I Pothof, W van Kesteren, Deltares / Delft Hydraulics, The Netherlands; R Roberts, G Kouba, Chevron, USA

Case Histories: Severe Slugging

Analysis of multiphase flow instabilities in the Girassol deep offshore production system

E Zakarian, D Larrey, Total, France

Shell Smart Choke: Slug suppression experience in the Gulf of Mexico

R Lacy, Shell Global Solutions (US) Inc., USA; J Germanese, Shell Exploration and Production Company, USA; G Haandrikman, Shell Global Solutions International B.V., The Netherlands; P Manfield, Shell Malaysia, Malaysia

Comparisons between severe slug mitigation methods by increasing backpressure and throttling riser outlet valve

H Yeung, Y Cao, L Lao, Cranfield University, UK

Followed by open discussion

Conference Proceedings

The conference papers will be professionally published as a soft bound volume, and will include a CD. They will be on sale from BHR Group upon the close of the conference. The proceedings are included as part of the delegate fee. To purchase additional copies, please contact Mrs. Marian Rolfe at the BHR Group address, or by email at mrolfe@bhrgroup.com.

Registration

The registration fee includes entrance to all technical sessions from 4th–6th June 2008, a bound book and CD of the conference proceedings, lunch and refreshments daily, and entrance to both the welcome reception and gala dinner.

Early bird rate (before 19th April)

Presenting author	£533.50
Delegate	£738.00
Rising stars	£410.00
Students	£410.00

Full registration rate (after 19th April)

Presenting author	£615.00
Delegate	£820.00
Rising stars	£410.00
Students	£410.00

*IMPORTANT: Delegates wishing to make payment in Canadian Dollars must add 7% GST to their fee and should contact Vanessa Richmond at Neotechnology Consultants (vanessa.richmond@neotec.com).

Early bird rate – applicable to all bookings received with payment on or before 19th April 2008.

Presenting authors – each presenting author (maximum of 2) is entitled to a 25% discount off the conference fee.

Rising Stars – in keeping with its audience, BHR Group wishes to foster recent graduates (within the last 5 years), engineers and managers to encourage their development and interaction with experienced technical managers. For full paying delegates, the organisers offer the option of a second place at a discounted rate of 50% for a colleague who meets the above criteria.

Students – a limited number of places are available for bona fide students at 50% of the full conference fee. Please contact the conference organiser directly to register as a student.

Exhibition service

A tabletop exhibition is planned alongside the conference and there are two options available. Organisations wishing to participate as an exhibitor are advised to contact the conference organiser.

Option A is £500 and includes:

- one exhibition space with one table (5x2.5ft) and two chairs (all additional equipment must be provided by the exhibitor)
- lunch and refreshments daily*
- attendance to the registration and welcome receptions*
- 5 minute presentation slot during the conference*
- contact details of delegates attending the conference

Option B is £1200 and includes:

- all the items in Option A
- attendance to all technical sessions*
- a copy of the proceedings and CD*
- attendance at the gala dinner*

* for one person only

Promotional Literature Service

There is an opportunity for companies to insert promotional literature in the delegate information packs at a cost of £300. Material for insertion must be sent to the conference hotel before **28th May 2008**. A sample of literature must be sent to the BHR Group Limited when making your booking for this service.

Proceedings Publicity

Companies may purchase a full page of advertising in the book and CD version of the proceedings. The cost of each page is £300 +VAT. The book is a soft bound volume, produced in Royal Octavo size. As well as being distributed to all attendees of the conference, the proceedings and CD are sold worldwide after the event. Copy must reach the conference organiser by **4th April 2008** to meet the publishing deadline.

Methods of Payment

Full payment must accompany the registration form. Please submit one form for each delegate and quote MP08 and the delegate's name and company on all correspondence. Photocopies of a blank form may be used.

- **Credit Card** – payment details should be entered on the registration form by completing the appropriate boxes and signing the form
- **Cheques** – make payable to BHR Group Limited
- **Sterling Bank Drafts** – delegates attending from countries with currency restrictions may wish to use sterling bank drafts
- **Bank Transfers** – payable to National Westminster Bank Plc, Cranfield University Branch, Wharley End, Cranfield, Bedford MK43 0SR, UK

Sterling payments

Account No: 36565466
Sort Code 60-06-56

IBAN: GB40 NWBK 6006 5636 5654 66
BIC: NWBK GB 2L

Euro payments

Account No: 550/00/39509257
Sort Code: 60-06-56

IBAN: GB07 NWBK 6072 1139 5092 57
BIC: NWBK GB 2L

US Dollar payments

Account No: 140/00/39509273
Sort Code: 60-06-56

IBAN: GB43 NWBK 6073 0139 5092 73
BIC: NWBK GB 2L

Cancellations

A full refund (minus a £50 admin fee) will be made for cancellations received on or before **19th April 2008**. No refunds will be made for cancellations after **19th April 2008**, however substitutions can be made at anytime.

BHR Group Company Profile

BHR Group Limited is an independent contract Research and Technology Organisation (RTO) and SME. We specialise in the fluid dynamics and mechanics, and fluid physical and chemical behaviour of industrial processes from the nano to macro scales. We provide our expertise through consultancy; research and testing services; physical and computational modelling; technology translation; specialist training, conferences and seminars; and product development and exploitation. These services are applied to solve problems for a wide range of industrial processes and sectors including chemicals, pharmaceutical, renewable and conventional energy sources, water and wastewater, and aerospace.

Our aim is to provide new innovative or optimised designs, analytical models and operating methodologies from which cost-effective and sustainable industrial processes can be developed. To do this we work closely with our customers to understand their business needs, and develop and implement practical technical and business solutions.

Consultancy and training courses are available for all aspects of slurry transportation and handling including sand, hydrates, cuttings & drilling fluids and GTL catalysts.

For more information, visit BHR Group's web pages at www.bhrgroup.com.

ACCOMMODATION BOOKING FORM

MULTIPHASE TECHNOLOGY CONFERENCE

Banff, Canada: 4th – 6th June 2008

The Conference will be held at the Banff Park Lodge. Accommodation has been reserved until **Saturday 19th April 2008**. All reservations received after this date will be accepted on a space available basis only and may not be at the preferential rate. Be sure to include your credit card information or your reservation will not be accepted.

To avoid disappointment and guarantee accommodation for the duration of the conference, delegates can book on line as follows – visit www.banffparklodge.com and click on 'Reservations' and then choose 'Make a conference reservation'. You will need to enter the **Group ID '7863' and the Password '559'** to ensure the BHR discounted room rate when you make a reservation.

Alternatively delegates may complete this form and return it to:

REF: BHR CONFERENCE 08

Banff Park Lodge

ATTN: Reservations

222 Lynx St, PO Box 2200

Banff, AB T1L 1K5, Canada

Tel: 403-762 - 4433

Fax: 403-762-3553

Toll free 1-800-661-9266

Please reserve:

No. of Superior Bedroom(s) at CAN\$230.00*	Arrival Date	Departure Date	No. of people in room
_____	____/____/08	____/____/08	_____

Special Requests _____

* prices subject to 4% Tourism Levy, 2% Tourist Improvement fee and 7% Federal Goods and Services Tax.
All rooms are non-smoking.

Guest details:

Surname / Family Name:	First Name:
Organisation:	
Mailing Address:	
Post/Zip code:	Country:
Telephone:	Fax:
E-mail:	
Signature:	Date:

Credit card details (required to guarantee the booking):

Type:	Number:	Expiry Date:
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Cancellation policy is 72 hours prior to arrival.

Should it be less than 72hrs, one night's accommodation will be charged to the credit card



INVOICE AND REGISTRATION FORM

*6th North American Conference on
Multiphase Technology
Banff, Canada: 4th–6th June 2008*

Your details

Please complete in block letters ticking appropriate boxes

Prof Dr Mr Mrs Miss Ms

Last name

First name

Position

Company

Company VAT Number

Address

Post/Zip Code

Country

Telephone

Fax

Email

Dietary requirements or special requests

Signature

Date

I am unable to attend the conference but am interested in purchasing the Proceedings

Please complete and return to:

Mrs Marian Rolfe
BHR Group Limited
The Fluid Engineering Centre
Cranfield, Bedfordshire MK43 0AJ, UK
Registered in England No. 2420351

Tel : +44 (0)1234 750422
Fax : +44 (0)1234 750074
Email: mrolfe@bhrgroup.com
www.bhrconferences.com
VAT Reg No. 536 4271 46

Please note that your name and company will be included in the List of Participants for the conference. This list will be made available to delegates, sponsors and exhibitors of the conference. If you do not wish your name and company to appear in the List of Participants please tick here . If you do not wish your name and address to be forwarded to conference sponsors and exhibitors please tick here .

We would like to keep you informed of other relevant BHR Group conferences and services. This will be carried out in accordance with The Data Protection Act 1998. Please write to the Conference Department, BHR Group, Cranfield, Bedfordshire, MK43 0AJ if you do not want to receive this information.



