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**CONJUGATE MARGINS CONFERENCE DUBLIN 2012** 

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## **Acknowledgements**

We would like to thank our main sponsors, the Irish Petroleum Infrastructure Programme (PIP - see www.pip.ie) and the Department of Communications, Energy and Natural Resources (DCENR). We especially wish to thank Mr Noel Murphy of the DCENR's Petroleum Affairs Division (PAD – see www.pad.ie) for his contribution to Ireland's hosting of the 2012 conference.

We would particularly like to acknowledge the members of the Conference Steering & Scientific Advisory committees: Michael Hanrahan, John Conroy, Nick O'Neill, Jacob Skogseid, John O'Sullivan and others mentioned elsewhere herein, for their help in planning this event over the past two years (see www.conjugatemargins.ie). Martin Davies and his team at the PIP Secretariat are thanked for providing planning and organisational support throughout.

We gratefully acknowledge the support of the professional societies who assisted in the promotion of the event including the American Association of Petroleum Geologists (AAPG), the Petroleum Exploration Society of Great Britain (PESGB), the European Federation of Geoscientists (EFG), the Petroleum Group of The Geological Society of London and the Atlantic Geoscience Society (AGS).

We particularly thank the organisers of the previous Central and North Atlantic Conjugate Margins conferences in Halifax (David E Brown & Grant Wach) and Lisbon (Nuno Pimentel & Rui Pena dos Reis) whose experience and invaluable guidance were essential to making the Dublin 2012 conference possible.

We are indebted to our many industry, government and academic sponsors who are listed on the inside front cover. We would like to particularly mention John Graham of the Department of Geology at Trinity College Dublin who assisted us in the early days of the conference and acted as our sponsors in the University. Nicola Meenan and her team in the Accommodation & Conference Office at Trinity College are particularly thanked for their help and assistance.

We would also like to thank all those associated with the organisation of the four conference field trips in Ireland, the UK and Portugal. Dr Alastair Ruffell (Queen's University Belfast), Dr Mark Cooper (Geological Survey of Northern Ireland), Prof Pat Shannon (University College Dublin), Prof Stephen Hesselbo (University of Oxford), Prof Grant Wach (Dalhousie University), Prof Nuno Pimentel (Lisbon University) and Prof Rui Pena dos Reis (Coimbra University) are all thanked for their hard work and enthusiasm.

We also thank separately Fáilte Ireland and Meet in Ireland for their generous support and contribution.

Conference Partners Ltd were contracted to organise the conference and the conference website. Key personnel include Jenny McAdam, Claire Kelly and Elva Hickey and we should acknowledge Warren Hallam who designed and developed the excellent conference website.

Finally, we thank you the delegates whose support is vital and without whom the conference would not have happened. We look forward to Conjugate Margins 2014 which will be held in St John's, Newfoundland, Canada.

**Martin Davies** 

## **Tuesday 21st August 2012**

13.00 – 17.00 Setup of poster display and exhibition areas (exhibitors only)

15.00 Registration opens on Upper Concourse

17.00 Exhibition opens on Lower Concourse

18.00 – 18.30 Signing of a new agreement on petroleum research collaboration – 'North Atlantic Petroleum

Systems Assessment' ('NAPSA') agreement between Ireland and Newfoundland-Labrador

18.30 – 20.00 Welcome reception on Lower Concourse, kindly sponsored by



# Wednesday 22<sup>nd</sup> August 2012

07.45 Registration opens

**OPENING SESSION** 

Co-Chairs – Mr Noel Murphy (DCENR-PAD) and Mr Viv Byrne (PIPCo RSG Ltd)

08.45 – 09.00 Opening Remarks and Introduction

09.00 – 09.30 Conference Opening by Minister of State, Mr Fergus O'Dowd TD

SESSION 1 - Plate Reconstruction of the Atlantic Ocean

Co-Chairs – Prof Jonathan Craig (ENI) and Mr Ian Atkinson (Nalcor Energy)

09.30 – 10.00 Keynote

A NEW KINEMATIC PLATE RECONSTRUCTION OF THE NORTH ATLANTIC BETWEEN IRELAND

AND CANADA

Bridget Ady and Richard Whittaker

10.00 – 10.30 CRUSTAL STRUCTURE, SUBSIDENCE HISTORY AND STRETCHING WITHIN THE OCEAN-CONTINENT-

TRANSITION OF THE CONJUGATE IRELAND AND NEWFOUNDLAND NORTH ATLANTIC MARGINS

Nick Kusznir, Alan Roberts, Andy Alvey, Richard Whittaker and Kateřina Štolfová

NEW INSIGHTS INTO THE REGIONAL MESOZOIC AND CENOZOIC EVOLUTION OF THE IRISH

OFFSHORE CONTINENTAL MARGIN

Kateřina Štolfová, Patrick Shannon and Richard Whittaker

10.30 – 10.45	Questions and Answers
10.45 – 11.15	Tea/coffee and biscuits
11.15 – 12.45	GEOLOGICAL CONSTRAINTS FOR A NEW PLATE RECONSTRUCTION OF THE NEWFOUNDLAND CONTINENTAL MARGIN Richard Whittaker, Kateřina Štolfová and Patrick Shannon
	COMPARISON OF LITHOSPHERE STRUCTURE ACROSS THE ORPHAN BASIN/FLEMISH CAP AND IRISH ATLANTIC CONJUGATE CONTINENTAL MARGINS FROM CONSTRAINED 3-D GRAVITY INVERSIONS Kim Welford, Patrick Shannon, Brian O'Reilly and Jeremy Hall
	DEFORMABLE PLATE RECONSTRUCTIONS FOR THE NORTH ATLANTIC AS A BASIS FOR PALAEOGEOGRAPHIC MAPPING AND THE CONSTRUCTION OF PALAEO-DIGITAL ELEVATION MODELS John Watson, Alberto Adriasola Munoz, Claire Glover, Jim Harris, Mike Goodrich and Lynne Hudson
	PLATE KINEMATICS OF THE BAY OF BISCAY Jean-Claude Sibuet and Shiri Srivastava
	DETERMINING THE COB LOCATION ALONG THE GALICIA BANK AND IBERIAN MARGIN FROM GRAVITY INVERSION, RESIDUAL DEPTH ANOMALY AND SUBSIDENCE ANALYSIS Leanne Cowie and Nick Kusznir
	BASEMENT INFLUENCE WITHIN THE LUSITANIAN BASIN Karen Connors, Lynn Pryer, Ron McWhorter and Bill Torguson
12.45 – 13.00	Questions and Answers
13.00 – 14.00	Lunch in Lower Concourse
	SESSION 2 – Atlantic Margin Evolution & Development Co-Chairs – Prof Patrick Shannon (University College Dublin) and Dr David Chew (Trinity College Dublin)
14.00 – 14.30	Keynote
	HYPEREXTENSION, WEAKENING AND CRUSTAL FOLDING IN THE NORTH ATLANTIC DOMAIN Tony Doré, Erik Lundin and Susann Wienecke
14.30 – 17.00	EARLY CRETACEOUS VOLCANISM IN THE PORCUPINE BASIN, ATLANTIC MARGIN OF IRELAND: KEY SEISMIC TRAVERSES YIELD NEW INSIGHTS INTO THE ORIGIN OF THE PORCUPINE MEDIAN VOLCANIC RIDGE
	Menno Dinkelman, Gérôme Calvès, Taija Torvela and Mads Huuse
	SEISMIC IMAGING OF SEDIMENTARY FEATURES RELATIVE TO A BURIED PALAEO-VOLCANO, OFFSHORE MOROCCO Dallas Dunlap and Lesli Wood
	TRACING DEEP LITHOSPHERIC STRUCTURES ALONG THE PASSIVE MARGIN OF NORWAY, ITS GREENLAND CONJUGATE, AND POSSIBLE IMPLICATIONS FOR RIFTING Sofie Gradmann and Jörg Ebbing
	EXHUMATION FOLLOWING POST-BREAKUP SUBSIDENCE IS A COMMON FEATURE OF  "PASSIVE" MARGINS
	Paul Green, Ian Duddy, Peter Japsen, James Chalmers and Johan Bonow

CORRELATING CALEDONIDE-APPALACHIAN TERRANES AND STRUCTURES BENEATH THE CONJUGATE MARGINS OF ATLANTIC CANADA AND NW EUROPE John Waldron and David Schofield

POST-RIFT VERTICAL MOVEMENTS IN NW AFRICA: SEARCHING A MODEL FOR EXCESSIVE SUBSIDENCE AND EXHUMATION Giovanni Bertotti, Mohamed Gouiza and Ibrahim Barrie

POST-RIFT KM-SCALE UPLIFT OF PASSIVE CONTINENTAL MARGINS CAN BE CAUSED BY COMPRESSIVE STRESSES
James Chalmers

THE HYPEREXTENDED MID-NORWEGIAN MARGIN - IMPLICATIONS FOR EXPLORATION Erik Lundin, Tony Doré and Susann Wienecke

17.00 – 17.15 Questions and Answers

17.15 – 17.30 Tea/coffee and biscuits

17.30 – 18.30 POSTER SESSION

Co-Chairs - Prof Grant Wach (Dalhousie University) and Mr Nick O'Neill (PIP Secretariat)

# **Thursday 23<sup>rd</sup> August 2012**

07.45 Registration opens

SESSION 3 – Atlantic Margin Evolution & Development (continued)

Co-Chairs – Mr Hamish Wilson (SLR) and Prof Rui Pena dos Reis (Coimbra University)

08.30 – 09.00 Keynote

DRAINAGE EVOLUTION IN MESOZOIC NE ATLANTIC MARGIN BASINS: SAND SOURCING, SCALES

AND SEDIMENT PATHWAYS

Shane Tyrrell, Peter Haughton, Áine McElhinney, Patrick Shannon and Stephen Daly

09.00 – 10.30 THE LITHOSPHERIC BREAKUP SURFACE AND THE BREAKUP SEQUENCE: THE SYN-TO POST-RIFT

TRANSITION ON THE WEST IBERIAN MARGIN-NEWFOUNDLAND

Duarte Soares and Tiago Alves

CRETACEOUS BASEMENT TECTONICS OF NOVA SCOTIA: WHAT WAS THE DRIVER?

David Piper and Georgia Pe-Piper

INTERPRETATION OF TECTONICS OF PASSIVE MARGIN OF NE GREENLAND FROM NEW SEISMIC

REFLECTION DATA AND GEOLOGICAL – GEOPHYSICAL CONSTRAINTS

James Helwig, Richard Whittaker, Menno Dinkelman, Peter Emmet and Dale Bird

TECTONO-STRATIGRAPHIC EVOLUTION OF THE SOUTHWEST IBERIAN MARGIN: A TAIL OF THE

**CENTRAL ATLANTIC** 

Ricardo Pereira, Tiago Alves and Joe Cartwright

CONJUGATE MARGINS OF THE EQUATORIAL ATLANTIC: SIMILARITIES AND DIFFERENCES

lan Davison

10.30 – 10.45	Questions and Answers
10.45 – 11.15	Tea/coffee and biscuits
11.15 – 12.45	NEW WIDE-ANGLE SEISMIC CONSTRAINTS ACROSS A MAGMA-STARVED, HYPER-EXTENDED NORTH ATLANTIC RIFT BASIN – ORPHAN BASIN Helen Lau, Louise Watremez, Keith Louden, Mladen Nedimović, Kim Welford and Garry Karner
	SIGNIFICANCE OF THE "OUTER MARGINAL DETACHMENT" (OMD) IN RIFTING: SEISMIC EXAMPLES FROM FLORIDA AND AROUND THE WORLD Jim Pindell, Rod Graham and Brian Horn
	CONTINENTAL BREAKUP AND THE FORMATION OF CONJUGATE MAGMA-POOR MARGINS IN NORTH ATLANTIC: MECHANISM, SYMMETRY AND THE EXTENSION DISCREPANCY Tim Reston and Ken McDermott
	REGIONAL VARIATIONS IN SOURCE ROCK MATURATION IN THE LUSITANIAN BASIN (PORTUGAL) – THE ROLE OF RIFT EVENTS, SUBSIDENCE, SEDIMENTATION RATE, UPLIFT AND EROSION Bernardo Teixeira, Nuno Pimentel and Rui Pena dos Reis
	THE THERMAL HISTORY OF THE MESOZOIC ALGARVE BASIN (SOUTH PORTUGAL) AND ITS IMPLICATION FOR HYDROCARBON EXPLORATION Bruno Rodrigues, Marisa Borges, Geoff Clayton, Paulo Fernandes and Vasco Matos
	THE IRISH ATLANTIC MARGIN: PETROLEUM SYSTEM ANALOGIES FROM THE UK CONTINENTAL SHELF AND ATLANTIC CONJUGATE MARGINS Andre Stout
12.45 – 13.00	Questions and Answers
13.00 – 14.00	Lunch in Lower Concourse, kindly sponsored by
	SESSION 4 – Atlantic Basin Petroleum Systems Co-Chairs – Prof Nuno Pimentel (Lisbon University) and Ms Madeleine Slatford (Tullow Oil)
14.00 – 14.30	Keynote
	DEPOSITIONAL ENVIRONMENTS AND SOURCE DISTRIBUTION ACROSS HYPEREXTENDED RIFT MARGINS OF THE NORTH ATLANTIC: INSIGHTS FROM THE IBERIA-NEWFOUNDLAND MARGIN Garry Karner, Christopher Johnson, Geoffrey Mohn and Gianreto Manatschal

14.30 – 17.00 TECTONIC CONTROL ON SEDIMENT SUPPLY AND RESERVOIR SUPPLY TO CONJUGATE ATLANTIC MARGINS

Duncan Macgregor

THE PALAEOGEOGRAPHIC AND PALAEO-CLIMATIC HISTORY OF THE CENTRAL & NORTH ATLANTIC CONJUGATE MARGIN BASINS: THE PREDICTIVE MAPPING OF SOURCE AND RESERVOIR FACIES Jim Harris, Edward Anderson, Alberto Adriasola Muñoz, Rob Crossley, Claire Glover, Nick Stronach, Mike Goodrich, Paul Valdes and Roger Proctor

KEY STRATIGRAPHIC ELEMENTS WITHIN ORPHAN BASIN, OFFSHORE NEWFOUNDLAND, CANADA Lynn Dafoe, Charlotte Keen, Graham Williams and Sonya Dehler

PLAY RISKS AND VOLUMES – OFFSHORE NOVA SCOTIA Hamish Wilson, Matt Luheshi, David Roberts and Bernard Colletta

SEISMIC STRATIGRAPHIC ANALYSIS OF THE CENOZOIC SEDIMENTS IN NW FAROE-SHETLAND BASIN – IMPLICATIONS FOR INHERITED STRUCTURAL CONTROL OF SEDIMENT DISTRIBUTION Jana Ólavsdóttir, Morten Anderson and Lars Boldreel

SEQUENCE STRATIGRAPHY AS A TOOL IN PREDICTING PETROLEUM SYSTEMS OF THE IRISH MARGIN AND THEIR CONTEXT IN THE PALAEOGEOGRAPHIC EVOLUTION OF THE NORTH ATLANTIC CONJUGATE MARGIN

Sarah Laird, K. Evans and M. Booker

THE PALINSPASTIC AND SEQUENCE STRATIGRAPHIC CONTEXT OF THE CONJUGATE MARGIN OF NORTH AMERICA AND NORTH WEST AFRICA Ailsa Messer, Euphrasia Wong, Colin Saunders, Nick Harper, Mark Reynald and Charlotte Adams

17.00 – 17.15 Questions and Answers

17.15 – 18.30 **POSTER SESSION** 

Co-Chairs - Prof Grant Wach (Dalhousie University) and Mr Nick O'Neill (PIP Secretariat)

19.30 Coach departs for Gala Dinner from Nassau Street (beside Trinity College)

20.00 – 22.30 Gala Dinner night at Johnnie Fox's in Glencullen

22.30 Coach returns to Trinity College and hotels

# Friday 24th August 2012

08.00 Registration opens

**SESSION 5 – Atlantic Margins E & P** kindly sponsored by

Co-Chairs – Mr Keith Byrne (Providence Resources) and Mr David E Brown (CNSOPB)



08.30 – 09.00 Keynote

EXPLORING THE EQUATORIAL ATLANTIC

Jerome Kelly

09.00 – 10.30 EXPLORATION UPDATE FROM ATLANTIC IRELAND

Noel Murphy, Michael Hanrahan, Clare Morgan and Oonagh O'Loughlin

2012 EXPLORATION AND PRODUCTION UPDATE ON THE MESOZOIC BASINS, NEWFOUNDLAND AND

LABRADOR ATLANTIC CONTINENTAL MARGIN

Michael Enachescu, Wes Foote, Ian Atkinson and John Hogg

	OFFSHORE NOVA SCOTIA?  Robert Merrill and Kevin Hill
	EXPLORATION IN THE WEST PORCUPINE BASIN: PALEOCENE POTENTIAL Matthew Warner, Jerry Chessell, Henry Charlampowicz, Steve Morse and Kevin Shrimpton
10.30 – 10.45	Questions and Answers
10.45 – 11.15	Tea/coffee and biscuits
11.15 – 12.15	EARLY OPENING HISTORY OF THE AFRICAN TRANSFORM MARGIN AND ITS INFLUENCE ON UPPER CRETACEOUS DEEPWATER DEPOSITIONAL SYSTEM IN THE DEEP IVORIAN BASIN Philip Towle, Danny Addis, Allen Brown, John Layman and Keith Mahon
	ANALOGUES FOR ATLANTIC CANADA RESERVOIRS FROM THE WESSEX (ENGLAND) AND LUSITANIAN (PORTUGAL) BASINS Grant Wach, Nuno Pimentel and Rui Pena dos Reis
	THE INFLUENCE OF COMPACTION ON THE DEVELOPMENT OF ROLLOVER ANTICLINES: AN EXAMPLE FROM THE WESTERN NIGER DELTA Hamed F. Khani and Stefan Back
	OVERPRESSURE REGIMES OF THE ATLANTIC PASSIVE MARGIN AND PORE PRESSURE PREDICTION Alistair Chaney
12.15 – 12.30	Questions and Answers
12.30 – 13.00	Conference Closing Ceremony. Handover to Organisers of CM 2014.  Award of speaker and poster prizes
13.00 – 14.00	Lunch/Posters
14.00 – 16.30	Breakdown of exhibition and poster display

MIZZEN – AN OVERVIEW OF THE FIRST OIL DISCOVERY IN THE FLEMISH PASS BASIN, EAST COAST

CONTROLS ON FELDSPAR DIAGENESIS, AS SEEN IN THE LOWER CRETACEOUS SANDSTONES OF THE

DEEP PENOBSCOT, AN ANALOGUE TO DEEP PANUKE – ARE MORE JURASSIC REEFS LURKING

Simon Haynes, Michael McDonough, Kai Gruschwitz, Trevor Johnson and Ed Stacey

OFFSHORE NEWFOUNDLAND

SCOTIAN BASIN, CANADA

Georgia Pe-Piper

## **General Information**

#### **Conference Venue**

Trinity College Conference Centre The Arts Building, College Green, Dublin 2 Phone: +353 1 896 4477

#### **Registration & Information Desk**

The registration and information desk will be open in the conference venue as follows:

 Tuesday 21st August
 15:00 – 18:30

 Wednesday 22nd August
 07:45 – 17:30

 Thursday 23rd August
 07:45 – 17:30

 Friday 24th August
 08:00 – 14:00

## Name Badge

Your personal name badge is your entrance ticket into all conference sessions and contains tickets to any social event you have registered for. Please wear this badge at all times. Conjugate Margins 2012 badge colour codes are as follows:

Plain – Delegates Red – Speakers Yellow - Co-Chairs

## **Smoking Policy**

Smoking is not allowed inside the conference venue.

### **Important Numbers**

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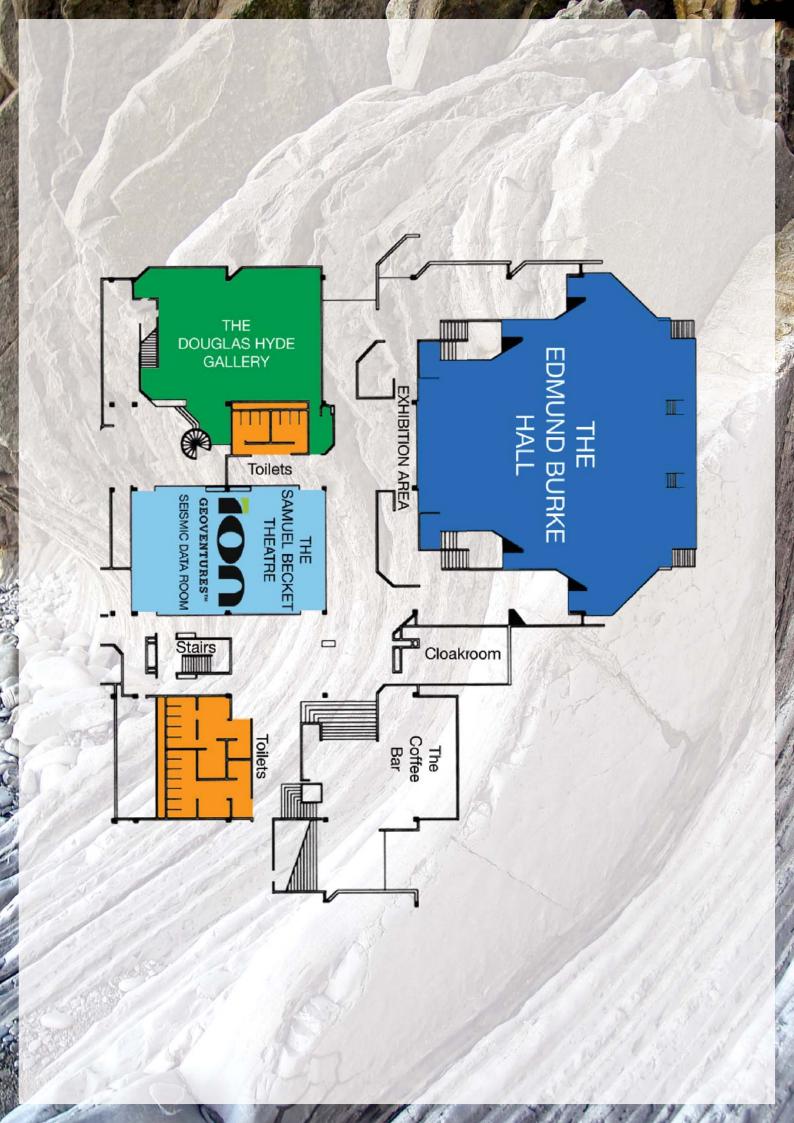
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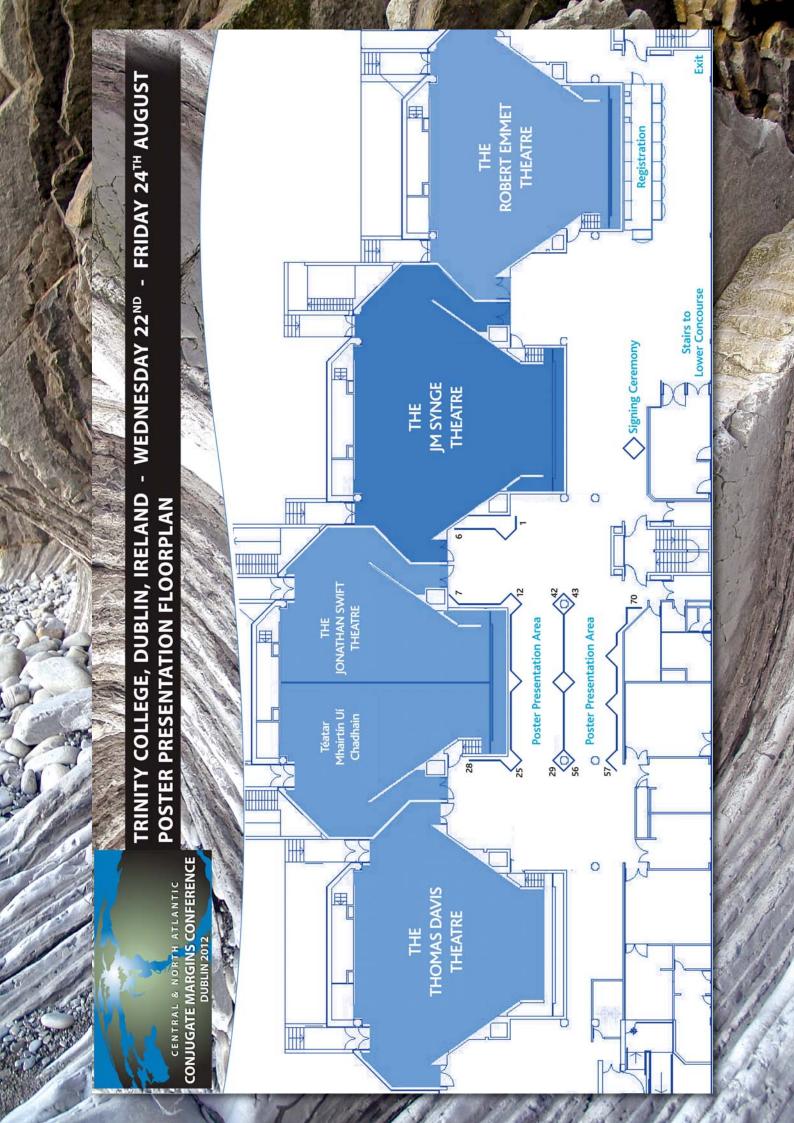
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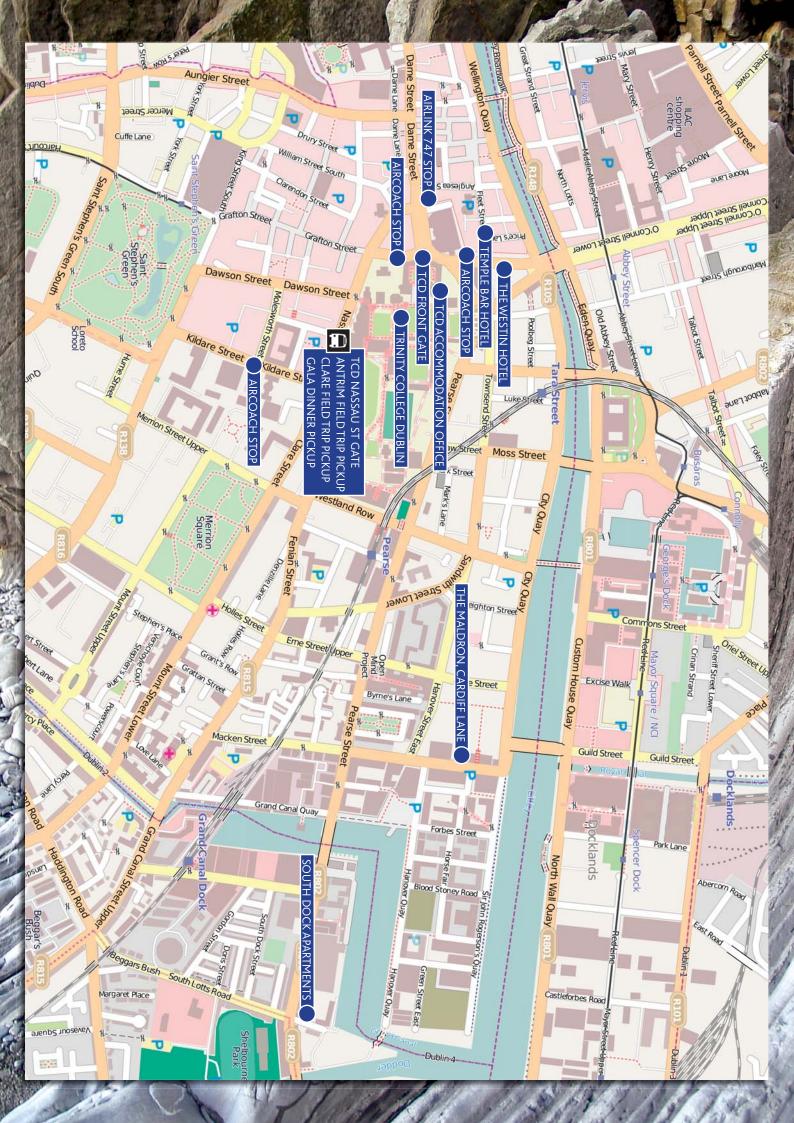
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**CONJUGATE MARGINS CONFERENCE** 







# List of Registered Delegates as of 10<sup>th</sup> August 2012

Last Name	Title	First Name	Organisation	Country
Schiffer	Mr	Christian	Aarhus University	DENMARK
Merrill	Mr	Robert	Ammonite Nova Scotia	UNITED STATES
Nelson	Mr	Robert	Anadarko	UNITED KINGDOM
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Frost	Mr	Brian	Anadarko Petroleum Corp.	UNITED STATES
Morrison	Mr	Kevin	Antrim Energy Inc.	CANADA
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Leyenberger	Mr	Terry	Apache Corporation	UNITED STATES
Casey	Mrs	Katya	Apache Corporation	UNITED STATES
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Kusznir	Professor	Nick	Badley Geodynamics Limited	UNITED KINGDOM
Fitzsimmons	Dr	Roy	BHPB Petroleum	UNITED STATES
Bird	Dr	Dale	Bird Geophysical	UNITED STATES
Robbins	Mr	John	Bluestack Energy Ltd	UNITED KINGDOM
O'Driscoll	Mr	Donal	Bluestack Energy Ltd	UNITED KINGDOM
Rawlinson	Mr	Andrew	Bluestack Energy Ltd	IRELAND
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Prendergast	Mr	William	BP	UNITED KINGDOM
Stewart	Dr	Margaret	British Geological Survey	UNITED KINGDOM
Nelson	Dr	Catherine	Cairn Energy PLC	UNITED KINGDOM
Dyson	Mr	Andrew	Cairn Energy PLC	UNITED KINGDOM
Batten Hender	Dr	Kelly	Canada - Newfoundland And Labrador Offshore Petroleum Board (C-NLOPB)	CANADA
Stead	Ms	Jordan	Canada - Newfoundland And Labrador Offshore Petroleum Board (C-NLOPB)	CANADA
Johnson	Ms	Stephanie	Canada - Newfoundland And Labrador Offshore Petroleum Board (C-NLOPB)	CANADA
Deptuck	Dr	Mark	Canada-Nova Scotia Offshore Petroleum Board	CANADA
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Kendell	Mr	Kris	Canada-Nova Scotia Offshore Petroleum Board	CANADA
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Klassen	Mr	Harold	Canada-Nova Scotia Offshore Petroleum Board	CANADA
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Stowe	Mrs	Jean	Chevron	UNITED STATES
Morgan	Mr	Alan	Chevron Energy Technology Company	UNITED STATES

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Lau	Dr	Ka Wai Helen	Dalhousie University	CANADA
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Simon	Miss	Sharane	Dalhousie University	CANADA
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Allen	Ms	Janice	Dalhousie University	CANADA
Wach	Professor	Grant	Dalhousie University	CANADA
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Morgan	Ms	Clare	DCENR/PAD	IRELAND
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Foote	Mr	Wes	Department of Natural Resources, Gov. of NL	CANADA
Middleton	Mr	David	Department of Natural Resources, Gov. of NL	CANADA
MacDonald	Mr	Adam	Department of Energy, Gov. of Nova Scotia	CANADA
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O'Beirne	Mr	Eoin	Earthmoves Ltd	UNITED KINGDOM
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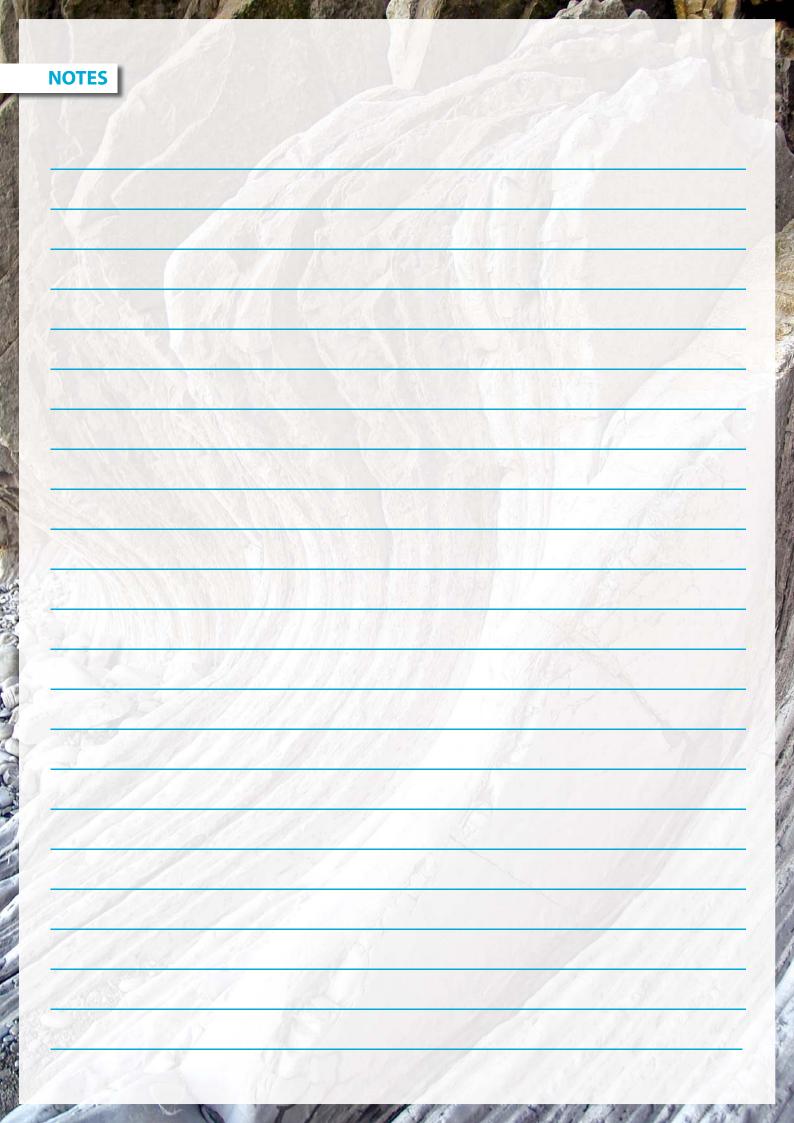
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Henderson	Mr	Leon B	L. Brooke Henderson, Geologist	UNITED STATES

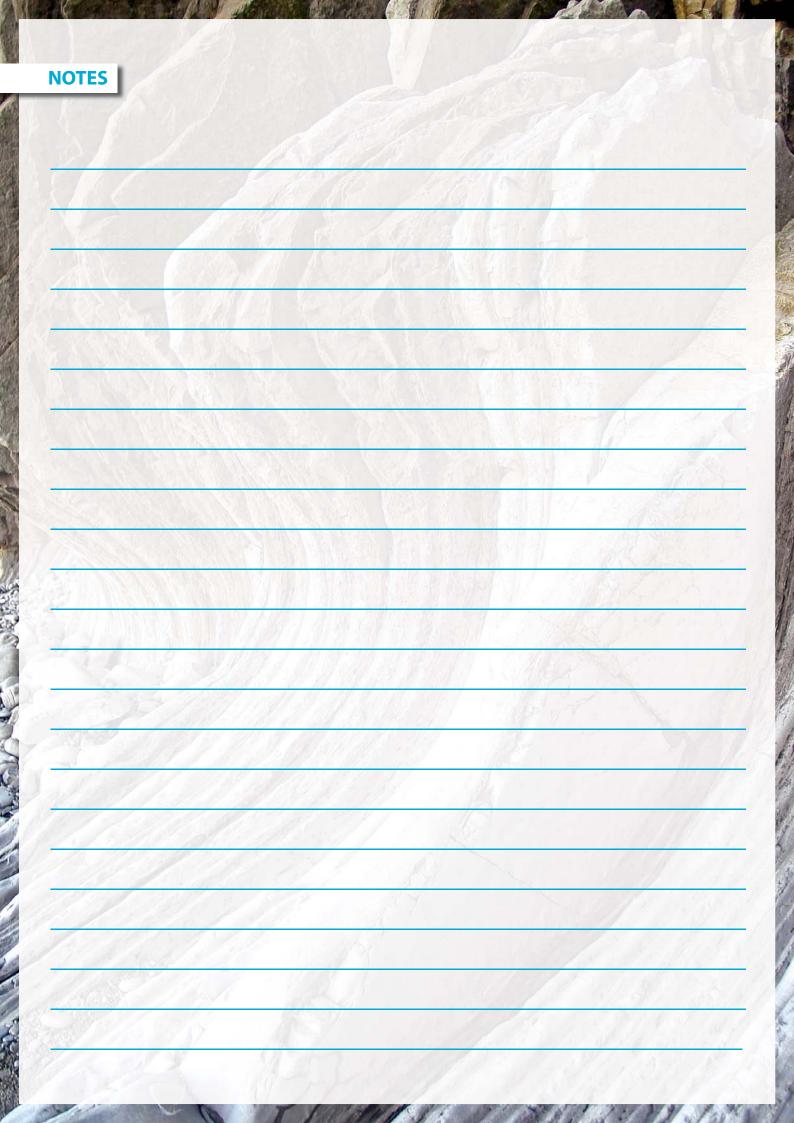
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O'Neill	Mr	Nick	PIP Secretariat	IRELAND
Murphy	Mr	Fergal	Providence Resources Plc	IRELAND

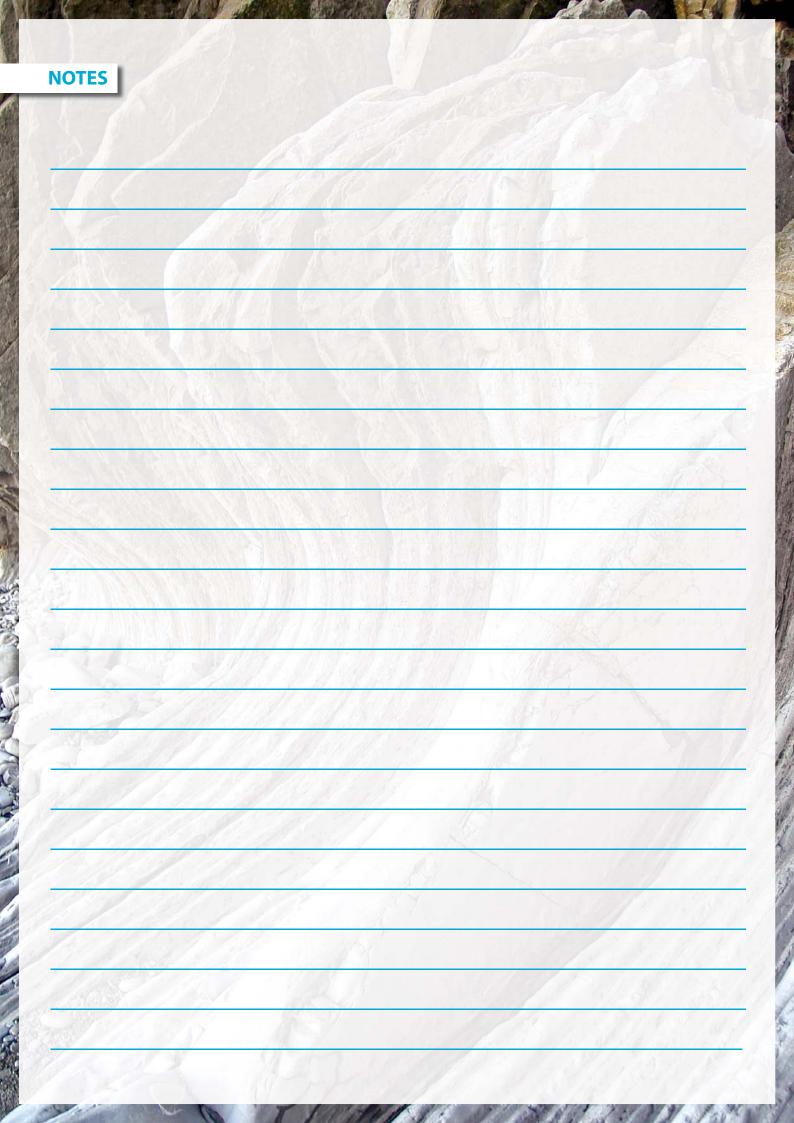
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