

TECHNICAL PROGRAM

NOTE: SPEAKERS & TIMES SUBJECT TO CHANGE

Tuesday, January 28th, 2014

OPENING ADDRESS & KEYNOTE PRESENTATION

Location: SALON 12

8:00 AM – 8:15 AM **OPENING ADDRESS**
John Aru, NACE NAWC 2014 Conference Chair

8:15 AM – 8:45 AM **KEYNOTE PRESENTATION**
“Best Practices for Corrosion Control – The Next Generation”
Pierre Crevolin (HDIM Protective Coatings/Past President of
NACE International)

Session 1A: Integrity Management 1

Time: 9:00 AM – 12 Noon

Location: Salon 4

Session Chair: Ray Goodfellow (IRISNDT)

- 9:00 AM **Integrity Management Systems – History and the Future**
Frank Gareau and Elaine Pacheco (Skystone Engineering)
- 9:30 AM **Fixed Equipment Integrity Program**
Prakash Gunasekaran and Ray Goodfellow (IRISNDT- ENGINEERING)
- 10:00 AM *Coffee Break (Exhibit Hall)*
- 10:30 AM **Oil Sands Mine Hot Recycled Water Systems Corrosion Challenges (TG 416)**
Mike Boire (IndConEng Consulting), Sally Hanearin (WorleyParsons) and Samuel Okulaja (Total E&P)
- 11:00 AM **Energy Asset Management Systems - Why You Need This?**
Gobind Khiani (Fluor Canada Limited) and Chris Hobbs (Enbridge Pipelines Inc.)
- 11:30 AM **Cathodic Protection Technician Designated Occupation in Alberta**
Cecil Gordon (Cenovus)
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Session 1B: Upgrading and Refining

Time: 9:00 AM – 12 Noon

Location: Salon 12

Session Chair: Harm DeGroot (Shell Canada Ltd.)

- 9:00 AM **Soil Side Corrosion on the Perimeter of Refinery Aboveground Storage Tanks**
Kelsey Fernuik (Shell Canada Ltd.)
- 9:30 AM **A Sniff and a Wink - Fugitive Emissions in Oil Sands (How we manage this as part of GHGs)**
Gobind Khiani (Fluor Canada Limited) and Chris Hobbs (Enbridge Pipelines Inc.)
- 10:00 AM *Coffee Break (Exhibit Hall)*
- 10:30 AM **Sensitization Behavior and Monitoring of Shell SS316Cb and SS316Ti Austenitic Stainless Steels**
Abhishek Gupta, Duane Serate, Rob G. Robinson, Simon Yuen (Shell Canada Ltd.)
- 11:00 AM **Diluent Quality Evaluation for Bitumen Extraction and Transportation - Impact on Downstream Processing**
Parviz Rahimi and Teclamarium Alem (CanmetEnergy)
- 11:30 AM **Properties of Dilbit and Conventional Heavy Crudes**
Michael Mosher and Haralampos Tsaprailis (Alberta Innovates - Technology Futures)
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LUNCH

Time: 12 Noon – 1:30 PM

Location: *Exhibit Hall*

Session 2A: Coatings

Time: 1:30 PM – 5:00 PM

Location: Salon 4

Session Chair: Jennifer Morse (Enbridge Pipelines Inc.)

- 1:30 PM **Pipeline Coating Performance**
Allan Glowach (Glowach Pipe Coating Consultant, Inc.) and Yoko Nakazato (Inter Pipeline Ltd.)
- 2:00 PM **Characteristics of a Successful Barrier Coating for Tank Linings**
Bob Pate (Denso North America)
- 2:30 PM **Coating Applicator Qualifications – A Vegas Style Gamble**
Gil Rogers (Rogers & Associates)
- 3:00 PM *Coffee Break (Exhibit Hall)*

- 3:30 PM **Effect of Conditioning Duration on Flexibility Test of Polymer Coatings**
Jane Hall, Ron Garrett, Tara Chahl, Jessica Saulnier (RAE Engineering and Inspection Ltd.)
- 4:00 PM **DLC Coating in Oil and Gas Production**
Tomasz Liskiewicz and Amal Al-Borno (Charter Coating Service Ltd.)
- 4:30 PM **Angels and Demons in the Realm of Protective Coatings: The Underworld of VOCs and Blast Profile Relationships**
Mike O'Donoghue, V.J. Datta and Russell Spotten (International Paints LLC)

Session 2B: Internal Corrosion

Time: 1:30 PM – 5:00 PM

Location: Salon 12

Session Chair: Trevor Place (Enbridge Pipelines Inc.)

- 1:30 PM **Qualifying Corrosion Inhibitors for Applications in Pre-corroded Pipelines using an Artificial Pit Electrode Apparatus**
Dennis Bacso, John Lerbscher, Joe Bojes, Wellington Wamburi and Pierre Blais (Baker Hughes)
- 2:00 PM **Methodology for Accelerated Microbiologically Influenced Corrosion in Under Deposits from Crude Oil Transmission Pipelines**
Andrew Oliver, Yanira Cabrera (GE Water and Process Technologies), Winston Mosher, Michael Mosher and Haralampos Tsapralis (Alberta Innovates – Technology Futures)
- 2:30 PM **Mechanistic Aspects of Internal Pitting Corrosion under Sand Deposit in Crude Pipelines**
Dong Han and Frank Cheng (University of Calgary)
- 3:00 PM *Coffee Break (Exhibit Hall)*
- 3:30 PM **Accelerated Dew Point Corrosion Of Gas Production Tubing**
Frank Gareau and Alex Tatarov (Skystone Engineering)
- 4:00 PM **Evaluation of the Corrosiveness of Glycol-Water Mixtures in Dry Gas Transmission Lines**
Li Yan (CanmetMATERIALS)
- 4:30 PM **Laboratory Testing and Field Measurements Coupled to Determine Accurately Useful Life on Metallic Structures Transporting Oil and Gas**
Luis F. Garfias Mesias (Wood Group Kenny - Integrity Management)

TRADESHOW RECEPTION & ICE CARVING

Time: 5:00 PM – 7:00 PM

Location: *Exhibit Hall*

Wednesday, January 29th, 2014

KEYNOTE PRESENTATION

Location: SALON 12

- 8:00 AM – 8:15 AM **Announcements and Introduction**
John Aru, NACE NAWC 2014 Conference Chair
- 8:15 AM – 8:45 AM **KEYNOTE PRESENTATION**
“Connecting Pipeline Integrity Goals with Social License Expectations”
Walter Kresic (VP Pipeline Integrity, Enbridge Pipelines Inc.)

Session 3A: Integrity Management 2

Time: 9:00 AM – 12 Noon

Location: Salon 4

Session Chair: Jenny Been (TransCanada Pipelines Ltd.)

- 9:00 AM **The Ideal Cathodic Protection Database?**
Gurneet Singh and Ivy Chan (ATCO Gas)
- 9:30 AM **Dealing with Severe Corrosion on a Recently Installed Pipeline**
Sorin Segall, R.A. Gummow, Daniel Fingas (Corrosion Service Company Limited) and John Shore (Union Gas Limited)
- 10:00 AM *Coffee Break (Exhibit Hall)*
- 10:30 AM **Support of Pipeline Integrity Management by Identification and Assessment of Pipeline Coating using EMAT ILI Data**
Stefan Klein (Rosen), R. Kania (TransCanada Pipelines), R. Weber (ILI Consulting), N. Jansing and M. Meuer (ROSEN)
- 11:00 AM **Use of ECDA Approach in Prioritization of ILI Anomalies**
Daniel Fingas, Sorin Segall, R.A. Gummow (Corrosion Service Company Limited) and John Shore (Union Gas Limited)
- 11:30 AM **Pipeline Risk Management and Repair Decision Making in Penn West Pipeline System**
Hong Lu, Bob Shapka, Matt Krawiec (Penn West Exploration)

Session 3B: Materials in Oil Sands 1

Time: 9:00 AM – 12 Noon

Location: Salon 12

Session Chair: Rick Duchesnay (CNRL)

- 9:00 AM **Material Selection for SAGD Blowdown Systems – Identifying Challenges and Opportunities**
Hannah Leibel and Daryl Foley (Group 10 Engineering)
- 9:30 AM **Application of Non-Metallic Materials to Augment Oilsands Asset Integrity**
Ram Narayanaswamy (WorleyParsons Canada)
- 10:00 AM *Coffee Break (Exhibit Hall)*
- 10:30 AM **Erosion-Corrosion Prevention by High Performance Polyurethane Elastomer Coatings**
Michael Magerstaedt (ROSEN Swiss AG), Gunther Blitz (ROPLAST GmbH), Larry Lai (ROSEN Canada Ltd) and Thorsten Raeth (ROPLAST GmbH)
- 11:00 AM **Wear Assessment Comparison between X-70 Steel and Polyurethane Using a Modified Sand Rubber Wheel Apparatus**
Victor Jaimes, Michael Lipsett (University of Alberta) and John Wolodko (Alberta Innovates - Technology Futures)
- 11:30 AM **Field Experience from Online Ultrasound Corrosion/Erosion Monitoring of an Oil Sand Slurry Pipeline**
Ingar Stian Nerbø, Sten-Roger Karlsen, Øystein Baltzersen and Harald Sleire (Sensorlink AS)
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LUNCH

Time: 12 Noon – 1:30 PM

Location: *Exhibit Hall*

Session 4A: Corrosion Mechanisms 1

Time: 1:30 PM – 3:30 PM

Location: Salon 4

Session Chair: Jingli Luo (University of Alberta)

- 1:30 PM **Brackish Water Corrosion in In-Situ Thermal Oil Sands Operations**
Tesfaleem Haile, Rio Wilkie, John Wolodko and Haralampos Tsapraillis (Alberta Innovates – Technology Futures)
- 2:00 PM **Boiling Mass Transfer to Electrode Surface**
Stan Klimas (Atomic Energy of Canada Limited), Chen Shen, Jingli Luo and Artin Afacan (University of Alberta)
- 2:30 PM **New Targets for the Identification of MIC: What Should We Be Looking For?**
Gerrit Voordouw, Hyung Soo Park, Jaspreet Mand and Thomas R. Jack (University of Calgary)



NACE[®] NORTHERN AREA
INTERNATIONAL WESTERN CONFERENCE

SHAW CONFERENCE CENTER, EDMONTON, ALBERTA – JANUARY 27- 30, 2014

- 3:00 PM **Connecting the Dots: Advanced AC & DC Corrosion Detection and Monitoring**
 Joey Gallant (Corrpro Canada)
- 3:30 PM *Coffee Break (Exhibit Hall)*
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Session 4B: Materials in Oil Sands 2

Time: 1:30 PM – 3:30 PM

Location: Salon 12

Session Chair: Rick Duchesnay (CNRL)

- 1:30 PM **Overlays for Corrosion/Wear Protection in Oil Sands Applications**
 Gary Fisher, Thilan Liyanage, Tonya Wolfe (Alberta Innovates – Technology Futures) and Hani Henein
 (University of Alberta)
- 2:00 PM **Analyzing the Influence of Thiosulfate and Chloride on the Localized Reactivity of Alloy 800 using Scanning Electrochemical Microscopy**
 Dahai Xia, Xueyuan Chen, Renkang Zhu, Jingli Luo (University of Alberta) and Stan Klimas (Atomic Energy of
 Canada Limited)
- 2:30 PM **Laser Assessment of Pipeline Corrosion and Mechanical Damage**
 David Mackintosh (Acuren Group Inc.)
- 3:00 PM **TBD**
- 3:30 PM *Coffee Break (Exhibit Hall)*
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STUDENT POSTER SESSION

Time: 3:00 PM – 5:00 PM

Location: *Foyer*

TRADESHOW

Time: 3:00 PM – 5:00 PM

Location: *Exhibit Hall*

BANQUET RECEPTION

Time: 5:00 PM – 6:30 PM

Location: *Hall D*

BANQUET (PROGRAM & DINNER)

Time: 6:30 PM – 10:00 PM

Location: *Hall D*

Thursday, January 30th, 2014

Session 5A: NACE International Technical Committees

Time: 9:00 AM – 10:00 AM

Location: Salon 4

Session Chair: Kimberly Harris (Enbridge Pipelines Inc.) and John Aru (Denso North America Inc.)

9:00 AM **NACE International Technical Committees**

Kimberly Harris (Enbridge Pipelines Inc.)

An introduction to NACE International that will include an overview of the technical committee structures (TCC, TMG, STG, TG, TIE, TEG, etc.) and explain what these acronyms mean and volunteering opportunities. Kimberly will also discuss how you can influence change by developing and implementing new standards and guidelines or changes to existing standards and guidelines.

9:30 AM **Introduction to NACE International – Edmonton Section**

John Aru (Denso North America Inc.)

10:00 AM *Coffee Break (Exhibit Hall)*

Session 5B: Corrosion Mechanisms 2

Time: 10:30 AM – 12 Noon

Location: Salon 4

Session Chair: Harry Tsaprailis (Alberta Innovates – Technology Futures)

10:30 AM **Study of Mass Transfer Behavior of Reactants Below Boiling and At Pool Boiling Conditions**

Chen Shen, Artin Afacan, Yashar Behnamian, Jingli Luo (University of Alberta) and Stan J. Klimas (Atomic Energy of Canada Limited)

11:00 AM **Memory Effect of Degradation Process of Passive Film on Alloy 800**

Hongqiang Fan, Yashar Behnamian, Jingli Luo, Mahesh D. Pandey and Yucheng Lu (University of Alberta)

11:30 AM **Oxidation and Stress Corrosion Cracking of Austenitic Alloys in Neutral pH Extreme Hydrothermal Environments**

Yashar Behnamian, Ziqiang Dong, Alireza Kohandehghan, Ramin Zahiri, David Mitlin, Weixing Chen, Jing-Li Luo (University of Alberta), Wenyue Zheng (CanmetMATERIALS), David Guzonas (Atomic Energy of Canada Limited)

Session 5C: Non-Metallic Solutions

Time: 9:00 AM – 11:30 AM

Location: Salon 12

Session Chair: John Wolodko (Alberta Innovates – Technology Solutions)

- 9:00 AM **Fiberglass Reinforced Piping in the Oil and Gas Industry**
Greg Thiele (Pipe Specialties - Canada) and Dennis Wezenberg (Future Pipe Industries)
- 9:30 AM **Different Failure Modes Of Non-Metallic Pipelines At Connections**
Alex Tatarov and Frank Gareau (Skystone Engineering)
- 10:00 AM *Coffee Break (Exhibit Hall)*
- 10:30 AM **Fiber-Reinforced Structures in Conventional and Emerging Piping Systems**
Pierre Mertiny, Mohammad Bashar (University of Alberta), Ahmed Hammami and Todd Yakimoski (Schlumberger New Venture)
- 11:00 AM **Flexible, Nonmetallic Insulation Cladding – Countering Corrosion Under Insulation**
Scott Sinclair (ULVA Insulation Systems, LLC)
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LUNCH

Time: 11:30 AM – 1:00 PM

Location: *Exhibit Hall*

TOUR OF LEDUC NO. 1 and DEVON RESEARCH CENTRE

Time: 1:00 PM – 5:30 PM

Location: *Pick-up & Drop Off at Shaw Conference Centre*
