

CONFERENCE PROGRAM

Tuesday, February 19

5:00 Exhibition open, Welcome reception sponsored by ROSEN USA

Wednesday, February 20

Breakfast sponsored by Coastal Chemical/N-Spec

1.0 Plenary opening session
Chair: George Williamson, BP, Houston, TX, USA

8:00 Opening remarks

8:15 [1] *Managing complexity through collaboration will need the industry to move from a proactive to a predictive mindset*
by Chris Yoxall, ROSEN USA, Houston, TX, USA

8:45 [2] *Achieving and demonstrating pipeline engineering capability: the role of competency standards, and their use for qualifications and registration*
by Chris Harvey, Chris Harvey Consulting, Australia

9:15 [3] *Assessing the competence of staff*
by Michelle Unger, ROSEN Group, Stans, Switzerland, and Dr Phil Hopkins, Phil Hopkins Ltd, Whitley Bay, UK

9:45 Coffee

10:30 [4] *A regulator's perspective on pipeline integrity concerns*
by Dr Iain Colquhoun and Joe Paviglianiti, National Energy Board, Calgary, AB, Canada

11:00 [5] *Achieving a North American record for longest intelligent inspection of a natural gas pipeline*
by Aaron Schartner and Sheshi Epur, TransCanada PipeLines, Calgary, AB, Canada, Steve Mayo and Euan Gibbons, Pipelines 2 Data Ltd, Aberdeen, UK, and Frank Sander, BHGE, Calgary, AB, Canada

11:30 [6] *Are you safer than you were 15 years ago?*
by Joel Anderson, Enable Midstream Partners, Oklahoma City, OK, USA

12:00 YPP Awards sponsored by Clarion Technical Conferences and Great Southern Press

12:30 Lunch sponsored by Enduro

2.1 ILI applications
Chair: Terry Shamblin, Equitrans Midstream, Pittsburgh, PA, USA

3.1 Risk assessment and management
Chair: Iain Colquhoun, National Energy Board, Calgary, AB, Canada

4.1 Evaluating dents reported by ILI for response and remediation
Chair: Sergio Limon, Elevara Partners, Salt Lake City, UT, USA

2:00 [7] *MFL high-temperature solution*
by Thomas Stubbe and Corey Richards, ROSEN Group, Lingen, Germany, Guenter Sundag, ROSEN USA, Houston, TX, USA, Matt Johnston and James Simmons, TransCanada PipeLines, Calgary, AB, Canada

[28] *Dissecting new PHMSA risk assessment guidelines*
by Sevinc Yeliz Cevik and William Kent Muhlbauer, WKM Consultancy LLC, Austin, TX, USA

Engineering methods for evaluating and ranking dents reported by ILI tools
by Rhett Dotson, ROSEN USA, Houston, TX, USA

Repair systems for dents

2:30 [8] *Transitioning from hydrostatic testing to ILI for pipelines with challenging seam welds*
by J Bruce Nestleroth, Kiefner & Associates, Columbus, OH, USA, Matthew S Krieg, Marathon Pipe Line LLC, Findlay, OH, USA, Thomas Hennig, NDT Global, Dublin, Ireland, and Harvey Haines, Applus RTD Technology Center, Houston, TX, USA

[29] *Quantitative risk assessment following an ILI survey (ILI-based risk assessment)*
by Jane Dawson, Ian Murray, Inessa Yablonskikh, and Thomas Hoffmann, BHGE, Cramlington, UK

by Dr Chris Alexander, ADV Integrity, Inc., Magnolia, TX, USA

What we have learned from decades of experimental research on dent behavior

by Aaron Dinovitzer, BMT Fleet Technology, Ottawa, ON, Canada

Q&A

3:00 [9] *The role of ILI in the MAOP verification process*
by Simon Slater, ROSEN USA, Houston, TX, USA, and Ollie Burkinshaw, ROSEN Group, Newcastle, UK

[30] *Knowledge risk management*
by John Godfrey, Tara McMahan, and Robert Barbeauld, DNV GL, Dublin, OH, USA

3:30 Coffee sponsored by Halfwave

5.1 ILI analysis
Chair: Terry Shamblin, Equitrans Midstream, Pittsburgh, PA, USA

3.2 Risk assessment and management (cont'd)
Chair: Jerry Rau, RCP, Houston, TX, USA

4.2 Evaluating dents (cont'd)
Chair: Sergio Limon, Elevara Partners, Salt Lake City, UT, USA

4:30 [10] *The art of looking: an in-line inspection perspective*
by Dr Mike Kirkwood, T.D. Williamson, Dubai, UAE, Dane Burden, and Miguel Maldonado, T.D. Williamson, Tulsa, OK, USA

[31] *Pipeline risk modeling: a comparative analysis of modeling techniques*
by Andrew Kendrick and Robin Echols, Kendrick Consulting, Aurora, CO, USA

A gas operator perspective on managing dents
by Rick Wang TransCanada, Calgary, AB, Canada

A liquids operator perspective on managing dents

Justin Harkrader and Michael Plishka, Colonial Pipeline Co., Alpharetta, GA, USA

Q&A

CONFERENCE PROGRAM (cont'd)

5:00	<p>[11] <i>Challenges associated with pit-to-pit matching (or how to know when corrosion is taking place)</i></p> <p>by Dr Tom Bubenik, Steven Polasik, and Zach Booth, DNV GL, Dublin, OH, USA, and Justin Harkrader, Colonial Pipeline Company, USA</p>	<p>[32] <i>Risk-based approach to inspection interval optimization</i></p> <p>by David Joyal, Dr Ken Oliphant, and Patrick Vibien, Jana Corporation, Aurora, ON, Canada</p>	<p>API 1183 Upcoming dent assessment and management recommended practice</p> <p>by Mark Piazza, Colonial Pipeline Co, Alpharetta, GA, USA</p> <p>Q&A</p>
5:30	End of day, Exhibition Reception sponsored by Intero Integrity Services		

Thursday, February 21

	<p>5.2 ILI analysis (<i>cont'd</i>)</p> <p>Chair: Roland Palmer-Jones, ROSEN Group, Newcastle upon Tyne, UK</p>	<p>6.1 Engineering assessment</p> <p>Chair: Ian Smith, ID Smith Pipeline Engineering, London, ON, Canada</p>	<p>7.1 Materials</p> <p>Chair: Dr Phil Hopkins, Phil Hopkins Ltd, Whitley Bay, UK</p>
8:00	<p>[12] <i>Analysis of factors which reduce MFL sizing accuracy of pinholes</i></p> <p>by Guy Desjardins and Joel Falk, Desjardins Integrity Ltd, Calgary, AB, Canada</p>	<p>[33] <i>Realistic burst pressure predictions in pipelines with non-ideal crack profiles</i></p> <p>by Dr Ted Anderson, TL Anderson Consulting, Longmont, CO, USA</p>	<p>[50] <i>Nondestructive testing of pipeline materials: Analysis of chemical composition from metal filings</i></p> <p>by Mary Louie, Dr Monty Liong and Nathan Switzner Exponent, Menlo Park, CA, USA, Dr Peter Veloo, Exponent, Los Angeles, CA, USA, Bill Amend and Melissa Gould, DNV GL USA (Inc.), Dublin, OH, USA and Troy Rovella and Dr Peter Martin, PG&E, Walnut Creek, CA, USA</p>
8:30	<p>[13] <i>Advancing ILI technology and pipeline risk management through advanced analytics of big data</i></p> <p>by Geoff Hurd, Jeff Sutherland, and John Elliott, BHGE, Calgary, AB, Canada, and Steve Farnie, BHGE, Houston, TX, USA</p>	<p>[34] <i>Evaluation of limitations and applicability of stress concentration factors for use in engineering critical assessments of dents</i></p> <p>by Shanshan Wu, Dr Tom Bubenik, Joe Bratton, and David Kemp, DNV GL USA (Inc.), Dublin, OH, USA</p>	<p>[51] <i>Nondestructive classification of LF, HF, and HF-normalized electric-resistance-welded (ERW) longitudinal seams</i></p> <p>by Dr Steven Palkovic, Parth Patel, Soheil Safari Loaliyan, Mohammad Islam, and Dr Simon Bellemare, MMT, Cambridge, MA, USA</p>
9:00	<p>[14] <i>The good the bad and the ugly: Categorizing pipelines using big data techniques</i></p> <p>by Roland Palmer-Jones, Erika Santana, Konstantinos Pesinis, Matthew Capewell and Michael Smith, ROSEN Group, Newcastle upon Tyne, UK</p>	<p>[35] <i>Nondestructive examination protocols for MAOP verification of station pipe</i></p> <p>by Simon Lockyer-Bratton, Dr Peter Veloo, Exponent, Los Angeles, CA, Mary Louie, Exponent, Menlo Park, CA, USA, Mark Ryan, Michael Rosenfeld, Kiefner & Associates, Columbus, OH, USA, and Troy Rovella, PG&E, Walnut Creek, CA, USA</p>	<p>[52] <i>Bayesian inference approach to establish sample size for material verification</i></p> <p>by Troy Rovella, PG&E, Walnut Creek, CA, USA, Joel Anderson, Enable Midstream, Oklahoma City, OK, USA, Kofi Inkabi, Exponent, Oakland, CA, USA, and Dr Peter Veloo, Exponent, Los Angeles, CA, USA</p>
9:30	Coffee		
	<p>5.3 ILI verification</p> <p>Chair: Bryan Melan, Tide Water Integrity LLC, Houston, TX, USA</p>	<p>6.2 Engineering assessment (<i>cont'd</i>)</p> <p>Chair: Garry Matocha, Enbridge, Houston, TX, USA</p>	<p>8.1 Cracks & seam welds</p> <p>Chair: Tom Bubenik, DNV GL, Dublin, OH, USA</p>
10:30	<p>[15] <i>Validation of computed tomography technology for pipeline inspection</i></p> <p>by Mark Piazza, Colonial Pipeline Co, Alpharetta, GA, USA, Timothy Burns and Taylor Shie, Shell Pipeline Co, Houston, TX, USA, and James Medford, Inspection Associates, Inc., Cypress, TX, USA</p>	<p>[36] <i>Leveraging ILI data to support ancillary asset integrity tasks</i></p> <p>by Lisa Barkdull, Quest Integrity, Houston, TX, USA and LeeAnn Escobar, Shell Pipeline Co., Houston, TX, USA</p>	<p>[53] <i>Improved system for the detection, sizing and prioritization of seam weld corrosion</i></p> <p>by Matthew Romney, T.D. Williamson, Salt Lake City, UT, USA and J Bruce Nestleroth and Dr Barry Hindin, Kiefner & Associates, Columbus, OH, USA</p>
11:00	<p>[16] <i>Guidance for interacting corrosion features reported by ILI</i></p> <p>by Lucinda Smart, Kiefner & Associates, Inc., Ames, IO, USA, Yanping Li, Enbridge, Edmonton, AB, Canada, J Bruce Nestleroth, Kiefner & Associates, Inc. Columbus, OH, USA, and Suzanne Ward, Enbridge, Edmonton, AB, Canada</p>	<p>[37] <i>Reliability-based criteria for corrosion assessment</i></p> <p>by Riski Adianto, Maher Nessim, and Dongliang Lu, C-FER Technologies, Edmonton, AB, Canada, and Shahani Kariyawasam, and Terry Huang, TransCanada PipeLines, Calgary, AB, Canada</p>	<p>[54] <i>High resolution inspections for crack detection: The next level of accuracy</i></p> <p>by Rogelio Jesus Guajardo Rodriguez and Thomas Hennig, NDT Global GmbH & Co KG, Stutensee, Germany</p>
11:30	<p>[17] <i>Use of NDE data in correlation with MFL data to refine neural network sizing algorithms</i></p> <p>by Jenny Jing Chen, Ron Ostafichuk and Dr Stephen Westwood, Onstream Pipeline Inspection, Inc., Calgary, AB, CANADA</p>	<p>[38] <i>Equivalent load fatigue: An efficient modification to the familiar Paris equation</i></p> <p>by Stephen Wood and Alfonso Garcia, Enbridge, Edmonton, AB, Canada</p>	<p>[55] <i>EMAT device for small diameter unpiggable gas pipelines</i></p> <p>by Clay Goudy, Q-Inline, Houston, TX, USA and Harprasad Kannajosyula, Milton Altenberg and Phil Bondurant, Quest Integrated, Kent WA, USA</p>

CONFERENCE PROGRAM (cont'd)

12:00	<p>[18] <i>Location and validation of metal loss defects identified by ILI</i> by Dr Michael Beller, ROSEN Group, Lingen, Germany, Gordon Reid, Sonomatic, Abu Dhabi, UAE, and Dr Roger King, International Corrosion Services, Manchester, UK</p>	<p>[39] <i>Technical background of a simplified process for conducting ECA of indicated pipeline indentations with metal loss</i> by Dr Fan Zhang, Michael J Rosenfield, Kiefner & Associates, Columbus, OH, USA</p>	<p>[56] <i>Common pitfalls to avoid when managing seam-weld integrity</i> by Michael Turnquist, Quest Integrity, Boulder, CO, USA</p>
12:30	Lunch		
	<p>5.4 ILI verification (<i>cont'd</i>) Chair: Tara McMahan, DNV GL, Dublin, OH, USA</p>	<p>9.1 Hydrostatic testing (<i>cont'd</i>) Chair: Gary Zunkel, BlueFin, New Iberia, LA, USA</p>	<p>8.2 Cracks & seam welds (<i>cont'd</i>) Chair: Rick Wang, TransCanada, Calgary, AB, Canada</p>
2:00	<p>[19] <i>A comprehensive approach to inline inspection verification using API Standard 1163</i> by Chad Haegelin and Joel Lindstrom, Integrity Solutions Ltd, San Antonio, TX, USA</p>	<p>[40] <i>Hydrotesting and ILI: Now and in the future</i> by Dr Mike Kirkwood, TD Williamson, Dubai, UAE, and Jerry Rau, RCP, Houston, TX, USA</p>	<p>[57] <i>An investigation into the impacts of integrity assessment efforts for pipelines with cracking threats</i> by Tara McMahan, Eric Graf, and Dr Thomas Bubenik, DNV GL, Dublin, OH, USA</p>
2:30	<p>[20] <i>Run comparison as a solution to incomplete ILI data and as an alternative to re-inspection of a challenging pipeline</i> by Toh Kai Xin, Quest Integrity, Cheras, Malaysia</p>	<p>[41] <i>A practicum on pressure testing: Compilation of best practices</i> by Sheri Baucom and Jerry Rau, RCP, Houston, TX, USA</p>	<p>[58] <i>Screening for long seam anomalies in ERW pipe using ultrasonic crack ILI data: a method for pipeline operators to unlock the value of their data</i> by Bernardo Cuervo and Mark McQueen, G2 Integrated Solutions, Houston, TX, USA</p>
3:00	Coffee (Marriott)		
	<p>11.1 Repair Chair: Bill Bruce, DNV GL, Columbus, Ohio, USA</p>	<p>12.1 Leak Detection I Chair: Everett Johnson, Marathon Oil Co, Houston, TX, USA</p>	<p>13.1 Mechanical damage Chair: Jerry Rau, RCP, Houston, TX, USA</p>
3:30	<p>[21] <i>Composite repairs – what does 'permanent' mean?</i> by Casey Whalen and Aleese Post, Milliken Pipe Wrap, Houston, TX, USA</p>	<p>[42] <i>The challenge of implementing and maintaining CPM leak detection on gathering networks</i> by Peter Han, Atmos International, San Antonio, TX, USA</p>	<p>[59] <i>Assessment of mechanical damage within dented pipe using multi-data ILI technology</i> by Luis Torres and Neil Hodson, Enbridge Pipelines, Edmonton, AB, Canada, Kaitlyn Korol, Imperial Oil, Canada, and James Simek, T.D. Williamson, USA</p>
4:00	<p>[22] <i>Full-scale finite element analysis and field success prove composite reinforcement is a viable repair for girth weld joint defects on vintage pipelines</i> by Buddy Powers, Tim Mally, and Mahdi Kiani, ClockSpring, Houston, TX, USA</p>	<p>[43] <i>Pipeline leak detection using tracer compounds and sledding techniques</i> by Ian Harris, Praxair Services, Inc., Tucson, AZ, USA</p>	<p>[60] <i>An evaluation of instrumented indentation testing to estimate yield and tensile strength</i> by Mary Louie, Exponent, Menlo Park, CA, USA, Dr Jeffrey A Kornuta, Exponent, Houston, TX, USA, Dr Peter Veloo, Exponent, Los Angeles, CA, USA, Troy Rovella, and Dr Peter Martin PG&E, Walnut Creek, CA, USA</p>
4:30	End of day		

Friday, February 22			
	<p>11.2 Repair (<i>cont'd</i>) Chair: Bill Bruce, DNV GL, Columbus, OH, USA</p>	<p>14.1 Data management Chair: Trevor MacFarlane, Dynamic Risk Assessment Systems, Calgary, AB, Canada</p>	<p>13.2 Mechanical damage (<i>cont'd</i>) Chair: Andrew Cosham, Ninth Planet Engineering, Newcastle, UK</p>
8:00	<p>[23] <i>Evaluating the performance of composite systems for reinforcing non-leaking crack-like defects in transmission pipelines</i> by Colton Sheets and Chantz Denowh, Stress Engineering Services, Houston, TX, USA</p>	<p>[44] <i>Practical application of machine learning methods to ILI data</i> by Michael Gloven, Expert Infrastructure Solutions, Inc., Denver, CO, USA</p>	
8:30	<p>[24] <i>Predictive modeling for shrink sleeve failure using machine learning</i> by Matthew Brown, Lake Superior Consulting, Duluth, MN, USA</p>	<p>[45] <i>Enhanced utilization of ILI inertial measurement data</i> by Dane Burden, T.D. Williamson, Salt Lake City, UT, USA</p>	<p>[62] <i>Gouge detection on dents below 1% depth with multiple data set technologies on an ILI tool</i> by Timothy Goller and Adrian Belanger, T.D. Williamson, Salt Lake City, UT, USA</p>
9:00	<p>[25] <i>Steel sleeves: a new look at a widely-used repair method</i> by Dr Chris Alexander, ADV Integrity, Inc., Magnolia, TX, Tommy Precht, Allan Edwards, Lake Charles, LA, and Chip Edwards, Allan Edwards, Tulsa, OK</p>	<p>[46] <i>Enabling the digital pipeline</i> by Steve Banks and Richard Smith, i2i Pipelines, Manchester, UK</p>	<p>[63] <i>Detailed dent assessment: Avoiding the pitfalls</i> by Aaron Lockey, Tim Turner, and Susannah Turner, Highgrade Associates Ltd, Newcastle upon Tyne, UK</p>
9:30	Coffee		

CONFERENCE PROGRAM (cont'd)

	12.2 Leak detection II Chair: Garry Matocha, Enbridge, Houston, TX, USA	14.2 Data management (cont'd) Chair: Everett Johnson, Marathon Oil Co, Houston, TX, USA	15.1 SCC Chair: Tom Bubenik, DNV GL, Dublin, OH, USA
10:00	<p>[26] <i>Leak detection and prevention using free-floating in-line sensors</i></p> <p>by Joel Smith, David Ham, Anouk van Pol and John van Pol, Ingu Solutions, Calgary, AB, Canada</p>	<p>[47] <i>The challenges of keeping integrity management systems relevant</i></p> <p>by Dr Sonny Llave, Pradeep Dhoorjaty, and Danny Golczynski, Wood Group, Houston, TX, USA</p>	<p>[64] <i>The detection and sizing of circumferentially oriented stress corrosion cracking using axially oriented magnetic flux leakage inspection</i></p> <p>by Ron Thompson and Jim Hare, Novitech, Inc., Vaughan, ON, Canada, and Ray Gardner and Katrina Dwyer, Xcel Energy, CO, USA</p>
10:30	<p>[27] <i>Development of a framework for evaluating and verifying external leak detection systems for pipelines</i></p> <p>by Mathew Bussiere, C-FER Technologies Inc., Edmonton, AB, Canada</p>	<p>[48] <i>Swimming in the data lake: Efficient pipeline data records discrepancy analysis and management</i></p> <p>by Michael Smith, Sam Acheson and Simon Slater, ROSEN USA, Houston, TX, USA and Ollie Burkinshaw, ROSEN Group, Newcastle, UK</p>	<p>[65] <i>An approach for evaluating the susceptibility of a pipeline to circumferential SCC</i></p> <p>by Jane Dawson and Ian Murray, BHGE, Cramlington, UK</p>
11:00		<p>[49] <i>Leveraging machine learning techniques to improve corrosion risk prediction in pipelines</i></p> <p>by Ramnath Easwar, Abhinav Priyadarshi, Andreas Gaarder, Jay Karen William, and Vijaytha Balaji, Wood Group, Houston, TX, USA</p>	<p>[66] <i>Full-scale testing of SCC in high frequency-ERW pipe with comparisons of inspection techniques to actual flaw measurements</i></p> <p>by Colton Sheets, Stress Engineering Services, Houston, TX, USA</p>
11:30	End of conference		