

### AGIS IX – SCHEDULE

### Day 1

0630 – 0820	BREAKFAST	Sponsored by Sensia
0820 – 0830	Introductions	Welcome to AGIS IX
0830 – 0915	Cornerstone Paper #1	Acid Gas Disposal – A View from the Trenches  Kristopher Kruse, ARC Resources Ltd, Calgary, Alberta
0915 – 0945	Paper 1	Acid Gas Injection Line Optimization for Water Dropout and Hydrate Prevention Linnea Russell <sup>1</sup> , Zayn Aladin <sup>2</sup> , and James van der Lee <sup>1</sup> 1. SLB and 2. Sensia
0945 – 1015	Paper 2	Pipestone Acid Gas Injection System  Rinat Yarmukhametov <sup>1</sup> , James R. Maddocks <sup>1</sup> , Tim Oldham <sup>1</sup> , and Dan Simons <sup>2</sup> 1. Gas Liquids Engineering Ltd., Calgary, AB, Canada and  2. Ovintiv (former Encana Corporation), Calgary, AB, Canada
1015 – 1030	COFFEE	Sponsored by CRA, Houston, TX, USA
1030 – 1100	Paper 3	Some Result of ERTF Carbon Capture Pilot Plant  Ahmed Aboduheir <sup>a</sup> , Neil Rathva <sup>b</sup> , Lin Li <sup>b</sup> , and Walid ElMoudir <sup>b</sup> a. Aboudheir Consulting Ltd., Regina, SK, Canada and b. Delta CleanTech Inc., Regina, SK, Canada
1100 – 1130	Paper 4	Case Study for the Application of CCUS to a Waste-to-Energy Italian Plant  Stefania Moioli <sup>a</sup> , Giorgia De Guido <sup>a</sup> , Laura A. Pellegrini <sup>a</sup> , Elisabetta Fasola <sup>b</sup> ,  Davide Alberti <sup>c</sup> , Adriano Carrara <sup>c</sup> a. Dipartimento di Chimica, Materiali e Ingegneria Chimica, Politecnico di  Milano, Milan, Italy; b. Acinque Ambiente Srl – Waste to Energy Plant, Como,  Italy; and c. a2a S.p.A, Brescia, Italy
1130 – 1200	Paper 5	Key Results of Tomakomai CCS Demonstration Project Yoshihiro Sawada, Jiro Tanaka, Daiji Tanase, Takashi Sasaki, and Chiyoko Suzuki, Japan CCS Co., Ltd., Tokyo, Japan
1200 – 1300	LUNCH	Sponsored by WSP



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1300 – 1330	Paper 6	Shell's CANSOLV CO2 Capture. De-risked and Commercially Deployed Technology to Decarbonize Assets Devin Shaw, Shell Catalysts and Technologies
1330 – 1400	Paper 7	Anhydrous Triethanolamine as a Solvent for Gases  A. E. Mather <sup>1</sup> , FY. Jou <sup>1</sup> , and K.A.G. Schmidt <sup>2</sup> 1 Department of Chemical and Materials Engineering, University of Alberta, Edmonton, AB and 2. Schlumberger, Calgary, AB
1400 – 1430	Paper 8	Alkanolamines – What Is Next?  Jörn Rolker, Evonik Operations GmbH, Darmstadt, Germany and Joe Lally, Evonik Corporation, Houston, TX, USA
1430 – 1500	COFFEE	Sponsored by Compass Energy, Calgary, Alberta, CA
1500 – 1530	Paper 9	Comparison of Models to Data for Phase Equilibria and Properties of CO2 + Contaminant Systems Wayne Monnery, Chem-Pet, Calgary, AB, Canada
1530 – 1600	Paper 10	Prediction of Acid Gas Density Using GERG-2008  S. Tadvi <sup>a</sup> , S. Rathva <sup>b</sup> , and John J. Carroll <sup>c</sup> a. University of Calgary, Calgary, Canada; b. Delta Cleantech Inc., Regina, Canada; and c. Gas Liquids Engineering, Calgary, Canada
1600 – 1630	Paper 11	Numerical Investigation and Prediction of Critical Points of CO2 Binary Mixtures using GERG-2008  Eduardo Luna-Ortiz, Pace CCS Ltd, London, UK

#### Day 2

0630 - 0820	BREAKFAST	Sponsored by Halliburton,
0800 - 0830	Paper 12	Simulation of multi zone coupling flow with phase change in fractured low permeability condensate gas reservoir  Wengang Bu, Weiyao Zhu, and Debin Kong, University of Science and Technology Beijing, Beijing, China



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0830 – 0900	Paper 13	Down Hole Pressure and Temperature Observations at a CO2 Injector Under Differing Injection Conditions  S. Talman, R. Chalaturnyk and A. Rangriz Shokri, Civil and Environmental Engineering, University of Alberta, Edmonton, AB
0900 – 0930	Paper 14	Dynamic Miscibility of H2S/CO2 with Oil in a Middle Eastern Triassic Reservoir Liaqat Ali and Ahmad J. Sultan, XHorizons, Houston, TX
0930 – 1000	Paper 15	Highlights from the Northeast BC Geological Carbon Capture and Storage Atlas Natalie Sweet, Alison Gibbs, and John Xie, Canadian Discovery Ltd., Calgary, AB
1000 – 1030	COFFEE	Sponsored by XHorizons
1030 – 1100	Paper 16	Evaluation of CO2 Storage Potential in the Deep Mannville Coals of Alberta: Vertical Well Injection Testing  Yun Yang and Christopher R. Clarkson, University of Calgary, Department of Geoscience, Calgary, Canada
1100 – 1130	Paper 17	Up The Success Story of Acid Gas Disposal (AGI) in WCSB - The Past, The Present, The Future  Mohammad Tavallali <sup>1</sup> , Robyn Swanson <sup>2</sup> , Vadim Milovanov <sup>1</sup> , Anuj Popli <sup>1</sup> , and Norbert Alwast <sup>1</sup> 1. S&P Global, Calgary, Canada and 2. Benoit Regulatory Compliance Inc., Calgary, Canada
1130 – 1200	Paper 18	A Practical Approach to Estimating Reservoir Performance Duration at Existing Injection Sites  David White, Santiago Flores, Alberto A. Gutierrez, Karen Flores, and Ghislaine Robin, Geolex, Inc., Albuquerque, NM
1200 – 1300	LUNCH	Sponsored by LEWA
1300 – 1500	Roundtable	Roundtable (part 1)
1500 – 1530	COFFEE	Sponsored by ARIEL



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1530 – 1700	Roundtable	Roundtable (part 2)
1700 – 1830		Pre-Gala Mingle
1830 – 2200	Gala Dinner	Sponsored by GLE

#### Day 3

0630 – 0820	BREAKFAST	Sponsored by Geolax
0830 – 0915	Cornerstone Paper #2	Acid Gas Injection from Start up to Stability – A Recap of Three Years of Operation and Troubleshooting  Loni van der Lee <sup>1</sup> , Jordan Watson <sup>1</sup> , and Laura Creanga <sup>2</sup> 1. Tidewater Midstream and 2. SLB
0915 – 0945	Paper 19	Acid Gas Injection Case Study for the Iraqi Region of Kurdistan  Mariana Alvis and G. Federico, Ad Terra Energy, Geneva, Switzerland
0945 – 1015	Paper 20	Corrosion Risk Estimation for Carbon Capture Projects, and Questions That Need to be Answered.  Mark McLeod, Brad Healey, Tundzhay Kurtulan, Ivan Gutierrez, OGC Energy, Sheffield, UK
1015 – 1030	COFFEE	Sponsored by STC
1030 – 1100	Paper 21	Symmetry Process Software Platform: Pushing the Operational Envelope of High CO2 Production Regions of Brazil  Marcelo Amara Da Costa <sup>1</sup> , Thiago Koichi Anzai <sup>1</sup> ; James van der Lee <sup>2</sup> ; Linnea Russell <sup>2</sup> ; and Ezequiel Vitriu <sup>3</sup> 1 CENPES – Petrobras; 2 Schlumberger, 3 to be determined
1100 – 1130	Paper 22	New Developments for Experimental Characterization of Brines Loaded with Carbon Dioxide  M. Cassiède, F. Hevia de Los Mosos, J-Y. Coxam, Y. Coulier, K. Ballerat-Busserolles, Université Clermont Auvergne, Clermont–Ferrand, France



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1130 – 1200	Paper 23	Well Construction Technologies for AGI and CCS Wells Ben Banack and Ryan Bartko, Halliburton, Calgary, AB
1200 – 1300	LUNCH	Sponsored by ASRL
1300 – 1330	Paper 24	CCUS via CO2 Compression with Reciprocating Compressors Patrick Campbell, Ariel Corporation, Mount Vernon, Ohio
1330 – 1400	Paper 25	Elemental Sulfur in Compression Systems: A Chemist's Look at Sources and Issues.  F. Bernard, P.D. Davis, C.E. Deering, and R.A. Marriott, Alberta Sulphur Research Ltd., University of Calgary, Calgary, Alberta
1400 – 1430	Paper 26	Process and Design Aspects of Diaphragm Pumps Rüdiger Bullert, LEWA GmbH, Leonberg, Germany
1430 – 1500	Paper 27	Material Selection for CO2 Injection Paul Maxwell, Corrosion Resistant Alloys (CRA), Houston, TX
1500 – 1530	COFFEE	Sponsored by STC
1530 – 1600	Paper 28	Quantitative Evaluation of Dynamic Solubility of Acid Gases in Deep Brine Aquifers  Liaqat Ali <sup>1</sup> , Ahmed J. Sultan <sup>1</sup> , and Russell E. Bentley <sup>2</sup> and K. Patel <sup>3</sup> 1. XHorizons, Houston, TX; 2. WSP USA, Houston, TX; and  3. Computer Modelling Group
1600 – 1630	Paper 29	How Svante is Paving the Way to a Viable CO2 Capture & Removal Industry Chad Badry, Travis Brookson, and Colleen Nitta, Svante Inc.



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1630 – 1700	Paper 30	Phase Equilibrium Measurements and Modeling of Organic Sulfur Species Propyl Mercaptan, Butyl Mercaptan, and Dimethyl Sulfide in MDEA/DEA Aqueous Solutions.  Javeed A. Awan¹ and Georgios M. Kontogeorgis² 1 University of the Punjab, Lahore, Pakistan and 2 Technical University of Denmark, Lyngby, Denmark
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#### **Posters**

Hydrates of Carbon Dioxide - A Review of Experimental Data

Bogdan Ambrożek<sup>1</sup> and Eugene Grynia<sup>2</sup>

- 1. West Pomeranian University of Technology, Szczecin, Poland
- 2. Gas Liquids Engineering Ltd., Calgary, Alberta, Canada

Prediction of Carbon Dioxide Frost Points Using GERG-2008

- S. Rathva<sup>a</sup>, S. Tadvi<sup>b</sup>, and John J. Carroll<sup>c</sup>
- a Delta Cleantech Inc., Regina, Canada
- b. University of Calgary, Calgary, Canada
- c. Gas Liquids Engineering, Calgary, Canada

A Novel Method for Calculating Average Formation Pressure of Gas Reservoir Type Underground Natural Gas Storage

Yubao Gao, Weiyao Zhu, Hongyang Chu, Ming Yue, University of Science and Technology Beijing, Beijing, China

Simulation of multi zone coupling flow with phase change in fractured low permeability condensate gas reservoir

Wengang Bu, Weiyao Zhu, and Debin Kong, University of Science and Technology Beijing, Beijing, China

Phase Equilibrium Measurements and Modeling of Organic Sulfur Species Propyl Mercaptan, Butyl Mercaptan, and Dimethyl Sulfide in MDEA/DEA Aqueous Solutions.

Javeed A. Awan<sup>1</sup> and Georgios M. Kontogeorgis<sup>2</sup>

- 1. University of the Punjab, Lahore, Pakistan and
- 2. Technical University of Denmark, Lyngby, Denmark