

GeoConvention 2023



geoconvention
Calgary • Canada • May 15-17 **2023**

Pre-Conference Guide

This is a live document, designed to help in preparations for the 2023 conference.

This document will be updated with any schedule changes, new exhibitors, new sponsors and new events as needed

Last update: May 11, 2023

May 15 - 17

Hybrid Event: Online and in-person
Calgary Telus Convention Center

July 1 – November 30
On-Demand



CEGA
Canadian Energy
Geoscience Association



CSEG
Canadian Society of
Exploration Geophysicists

www.geoconvention.com

SCHEDULE AT A GLANCE

MONDAY, MAY 15TH

7:00-5:00 | Exhibition Foyer
Registration

8:25-11:50 | Glen and TELUS Rooms
Morning Technical Sessions

9:50-10:35 | Exhibition Foyer
Coffee and Poster
Presentations

11:50-1:25
Lunch Break

1:15-3:05 | Glen and TELUS Rooms
Afternoon Technical Sessions

3:30-4:30 | Exhibit Hall E
Opening Keynote

4:30-7:00 | Exhibit Floor
Icebreaker Reception

TUESDAY, MAY 16TH

7:00-5:00 | Exhibition Foyer
Registration

9:00-6:30
Exhibit Floor Open

10:00-3:30
Showcase Stage

8:25-12:15 | Glen and TELUS Rooms
Morning Technical Sessions

9:50-10:35 | Exhibit Floor
Coffee with Exhibitors and
Poster Presentations

11:30-2:00
CSEG GeoConvention Luncheon

1:15-5:00 | Glen and TELUS Rooms
Afternoon Technical Sessions

2:40-3:20 | Exhibit Floor
Coffee with Exhibitors
Poster Presentations

4:00-6:30 | Exhibit Floor
Networking Reception

WEDNESDAY, MAY 17TH

7:00-3:00 | Exhibition Foyer
Registration

9:00-3:30
Exhibit Floor Open

10:00-2:30
Showcase Stage

8:25-12:15 | Glen and TELUS Rooms
Morning Technical Sessions

9:50-10:35 | Exhibit Floor
Coffee with Exhibitors and
Poster Presentations

11:30-1:00
CEGA Luncheon - Energy
Transition

1:15-5:00 | Glen and TELUS Rooms
Afternoon Technical Sessions

2:40-3:20 | Exhibit Floor
Coffee with Exhibitors and
Poster Presentations

4:35-5:00 | Glen Pre-Function
Challenge Bowl Warm-Up

5:00-7:00 | Glen 201-204
Challenge Bowl

PLEASE NO PHOTOS OR VIDEOS OF PRESENTATION MATERIALS

GeoConvention provides a means to share, publish, and collaborate on the latest developments in geoscience research and applications. By registering for GeoConvention 2023, you agree to not record, screen capture, or in any way reproduce material presented at the conference. Abstracts will be publicly available. Presentation materials (audio and visual) are intellectual properties of the authors and should not be disseminated, in any way, by registrants.



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Welcome to GeoConvention 2023

Dear GeoConvention Attendees,

On behalf of the organizing committee, the GeoConvention Partnership Board and partner societies, welcome to GeoConvention 2023! We would like to thank you for joining us, be it in person or virtually.

GeoConvention 2023 will be an opportunity for us to share our thoughts and exchange ideas on how to chart our journey forward to reach new heights. With the hard work of our session chairs and the dedication of hundreds of earth science professionals who have stepped up to share their knowledge, the GeoConvention program will allow members to reflect upon and celebrate their past accomplishments, new science and workflows, and jointly explore current and future opportunities within and outside of oil and gas.

GeoConvention also provides the opportunity to renew friendships and extend networks; please freely share, learn, and engage with fellow delegates as we aim to push our understanding of the earth science to new levels.

We hope that you will have a productive and fun-filled time at the conference.

To put a conference of this magnitude together is not a small task. To that end we would like to thank our organizing committee, session chairs, and presenters for all their hard work in pulling the conference together.

We would also like to thank all the sponsoring organizations for providing their generous support.

Lastly, we would like to thank all the conference participants and volunteers for their contributions which are the foundation of this conference.

We thank you for the continued support of the CSEG and CEGA and welcome you to GeoConvention 2023!



geoconvention
partnership

On behalf of the GeoConvention Partnership, the partner societies CEGA and CSEG, and the Organizing Committee, we thank you for joining us.

Devika Naidu
CSEG General Chair



Victoria Biersteker
CEGA General Chair



Gary Bugden
CEGA Co-General



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PROGRAM SUBJECT TO CHANGE

For the most up-to-date information check out the online program

Download the Convention App to your mobile device!

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Showcase Stage (Exhibit Floor)

30 Minute Presentations

TUESDAY, May 16

- 10:00am **Ikon Science: Data Foundations: Unlocking the Potential of Digital Workflows with Ikon's Curate**, Dr. James Tomlinson
- 10:30am **S&P Global: Modernizing Delivery - Tabular & Spatial Data via Snowflake**, Jennifer Howell and Matt Knopp
- 11:00am **Katalyst: Data Management brings new energy to New Energy**, Sue Carr
- 1:00pm **Nanometrics: Key Insights Gained from Induced Seismicity Monitoring in North American Shale Plays**, Dr. Adam Baig and Dr. Ben Witten
- 1:30pm **Nova Scotia Department of Natural Resources and Renewables: Call for Bids NS22-1: Research, Innovation, and Exploration Opportunities**, Natasha MacAdam
- 2:00pm **Eavor: New Play Types in Global Exploration using Next Generation Geothermal**, Stephen Longfield
- 2:30pm **OptiSeis Solutions Ltd.: EcoSeis: An Innovative Solution for Accurate, Cost-Effective, Environmentally-Friendly Seismic Acquisition**, Alyson Birce
- 3:00pm **GeoScienceWorld: Enhance decision making and drive growth with the latest geoscience data and research advances from GeoScienceWorld**, Maria Lindbloom

WEDNESDAY, May 17

- 9:30am **Carbon Alpha: Early-stage CCS in practice and what it means for geoscientists**, Lee Hunt
- 10:00am **Ikon Science: Rock Physics and Seismic Modeling for CCUS Prediction: Workflow and Case Studies**, Dr. Jeremy Gallop
- 10:30am **S&P Global: Decarbonizing refined products – a review of US Gulf Coast refinery GHG emissions reduction opportunities**, Susan Bell
- 10:45am **On the roadmap of carbon abatement-CO2 source/sink hub identification in Shallow Water GOM (SW-GOM)**, Mohammed Tavallali
- 11:00am **GLJ Ltd.**
- 11:30am **Eavor: New Play Types in Global Exploration using Next Generation Geothermal**, Stephen Longfield
- 2:00pm **Tu Deh-Kah Geothermal: Tu Deh-Kah Geothermal Project**, Andrea Warren and Chelsey Hay

Core Showcase (Exhibit Floor)

Come view core samples and learn about the stories behind them. With unique core and presenters featured each day, you will want to be sure to stop by often!

MONDAY, May 15

Solange Angulo Saldina, PhD: Research Associate, University of Calgary, Duvernay Formation, Two Creek

Dilpreet Khera, BSc, G.I.T.: Spectrum Geosciences, Nisku Formation, Pembina

David Hills, P.Geo: Entropy Inc., Swan Hills Formation, Judy Creek

TUESDAY, May 16

Solange Angulo Saldina, PhD: Research Associate, University of Calgary, Montney Formation, Two Creek

Murray Gilhooly, PhD: Retired, Leduc Formation, Redwater

David Hills, P.Geo: Entropy Inc., Swan Hills Formation, Judy Creek

WEDNESDAY, May 17

Solange Angulo Saldina, PhD: Research Associate, University of Calgary, Montney Formation, Two Creek

John Gordon, PhD P.Geo: Spectrum Geosciences Inc. Lithium Brine samples, Central Alberta



2023 ORGANIZING COMMITTEE

General Co-Chair	Devika Naidu
General Co-Chair	Victoria Biersteker
General Co-Chair	Gary Bugden
Posters Chair	Shannon Hiebert
Judging Chair	Julia Davison
Volunteer Chair	Marry Zhang
Volunteer Chair	Jon Crealock
Student Outreach	Samantha Mackie
Social Media	Sandra Gharbi
Digital Production	Chris Harrison
Committee Member	Alexandra Gauci

EXHIBITOR LISTINGS

EXHIBITION
HOURS

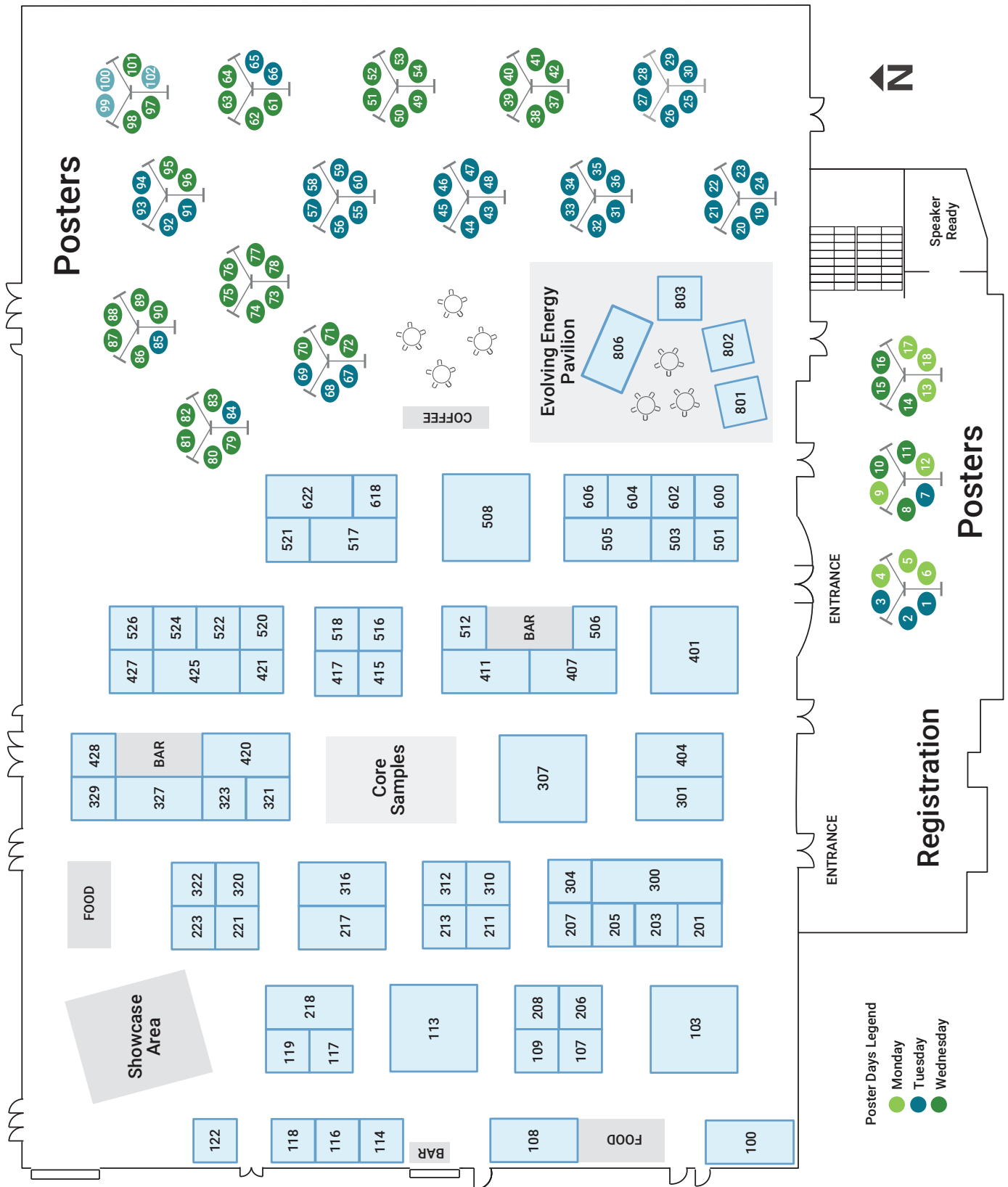
MAY 15TH
MONDAY
4:30 PM – 7:00 PM

MAY 16TH
TUESDAY
9:00 AM – 6:30 PM

MAY 17TH
WEDNESDAY
9:00 AM – 3:30 PM

EXHIBITORS (listed in alphabetical order)

COMPANY	BOOTH	COMPANY	BOOTH	COMPANY	BOOTH
Advanced Logic Technology	415	geoLOGIC systems Ltd	113	PetroStrat Canada Limited	213
AGAT Laboratories.....	300	GeoScienceWorld	116	Pro Geo Consultants	411
Applied Petroleum Technology	108	GeoSoftware LLC	518	Proton Technologies Canada Inc ..	801
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Cabra Consulting, Ltd.....	425	GLJ Ltd.....	803	Leadership.....	323
Canadian Discovery	321	Government of Newfoundland		ReSource YYC.....	522
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CHAD Data	205	Instrumental Software		S&P Commodity Insights.....	201
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Cordax Evaluation Technologies ...	427	Interface Fluidics	207	Saskatchewan Ministry of	
CSEG Outreach.....	622b	Isobar Science	114	Energy and Resources	327
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DigitCore.....	420a	Services Ltd	122	Sercel	517a
DMT Geosciences Ltd	100	Loring Tarcore Labs Ltd.	420b	Slb	401
DownUnder GeoSolutions		Manitoba Geological Survey	428	Sound QI Solutions Ltd	505
(America) LLC.....	329	Nanometrics	501	Spectrum Geosciences Ltd.	417
Eavor Technologies Inc.....	806	Natural Resources Canada	208	subsurfaceAI Inc.	103
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POSTERS

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Jointly inverting resistivity and seismic data and jointly interpreting separate results to reduce single-method uncertainty	Yonatan Garkebo Doyoro	13	May 15, 10:00 AM
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Natural Fracture Patterns Exposed on Bedding Planes: Using Observations in Outcrops to Infer Subsurface Trends	Carolyn Furlong	4	May 15, 10:00 AM
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Amplitude Versus Frequency	Jiajun Han	17	May 15, 10:10 AM
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Facies Heterogeneity and Stacking Patterns Control on Meter-scale, Mechanically Bounded Units: An Example from the Lower Triassic Sulphur Mountain Formation (Montney Equivalent)	Patricia Fraino	5	May 15, 10:10 AM
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Integrated High Resolution Static Model Build in Challenging Carbonates, Kuwait	David Jesudian	12	May 15, 10:10 AM
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Analyzing the Relationship between Hydraulic Fracture Pressure vs Time Curves and Geological Properties of the Montney	Nicole Virginillo	6	May 15, 10:20 AM
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Seismic facies differentiation using a multi-variate process of the Early Jurassic, Browse Basin, North West Shelf, Australia.	Ryan Green	9	May 15, 10:20 AM
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Source-independent acoustic full-waveform inversion	Xin Fu	18	May 15, 10:20 AM
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Techno-economic Feasibility of Storage of Hydrogen Produced from Bruce Nuclear Power Plant, Ontario	Raisha Pradisti	30	May 16, 10:00 AM
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Poster Sponsors:



The Orange Basin, Deepwater Namibia One of the World's Newest and Hottest Oil and Gas Hunting Grounds	Tako Koning	7	May 16, 10:00 AM
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Atlantic Margin Source Rock Characterization - Implications for Future Exploration in Uruguay and Nova Scotia	Karyna Rodriguez	55	May 16, 10:00 AM
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Decarbonizing Heat in Canada's North	Catherine Hickson	31	May 16, 10:00 AM
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Geochemical Characterization of a Gas Condensate Accumulation: A Case Study from the Middle East	Norka Marciano	67	May 16, 10:00 AM
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Geothermal Energy as a Heat Source for Oil Sands Processing in Alberta: Greenhouse Gas (GHG) Emissions Quantification	Hasmik Asmaryan	43	May 16, 10:00 AM
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Regional stratigraphy and U-Pb detrital zircon geochronology of the Lower Cretaceous Mannville Group, Alberta: insights into sediment transfer in an uplifted foreland basin	Benjamin Daniels	19	May 16, 10:00 AM
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Volumetric distribution and reservoir analysis of the Late Ordovician Black Island Member of the Winnipeg Formation, Southeastern Saskatchewan	Naveed Iqbal	25	May 16, 10:00 AM
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Bioturbation and gutter casts - Implications for the origin of erosion and by-pass in storm-dominated carbonate systems	Kai Zhou	26	May 16, 10:10 AM
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Building decarbonization applications from the subsurface: Calgary building developers are leaning into geothermal technologies	Philip Adebayo	45	May 16, 10:10 AM
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Nahanni Butte, NWT - Right Sizing Geothermal Development
Catherine Hickson 33 May 16, 10:10 AM

Oil and Gas Generation, Migration, Production Forecast, and Geochemical Reservoir Characterization of the Northern Denver Basin: Implication from the Total Petroleum Systems Analysis.
Mohammad Rahman 68 May 16, 10:10 AM

Structural configuration and tectonics of the Flemish Cap-Orphan Basin, offshore Newfoundland, from interpretation of seismic reflection profiles and plate reconstruction modelling
Pei Yang 57 May 16, 10:10 AM

Volcaniclastic Deep-water Facies and Architecture of an Arc Adjacent Lobe Fan System: The Mistaken Point Formation, St. John's, Newfoundland
Grace Khatrine 20 May 16, 10:10 AM

The use of U-Net and hyperbolic Radon transform for multiple attenuation
Paloma Lira Fontes 94 May 16, 10:10 AM

Alberta Regulatory Update and Implications for Geothermal Projects
Emily Smejkal 44 May 16, 10:20 AM

Calibration of Depositional Sequences of the Lower Cretaceous Clastics with the Global Sea Level Curves, Lower Indus Platform Basin, Pakistan
Shakeel Ahmad 21 May 16, 10:20 AM

Petroleum Resource Assessment of the Fundy Basin: A Literature Review
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Seasonal variation of dv/v at the Newell County Facility in Alberta, Canada
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Single or Multiple Sources for Oils in Western Kansas: An Oil-Oil Correlation Study
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Full waveform uncertainty analysis given by conventional method and machine learning
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Automated Core-Based Ichnological Descriptions Using Machine Learning
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Montney Machine Learning Evaluating Clay Control, Surfactant and Scale Inhibitors: Optimal Additives Types and Concentrations
Tim Leshchyshyn 1 May 16, 2:45 PM

Navigating the Challenges of Small Modular Reactors: A Comprehensive Study of Site Design, Policy, Economics, and Community Integration in Canada's Nuclear Energy Transition
Thomas de Boer 27 May 16, 2:45 PM

Common image gathers from blended data
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Continuous Acquisition of Time Domain Electromagnetic Data to Map Hydrostratigraphy Under a Large Water Body
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Geotechnical Centrifuge Modeling of CO₂ EOR in CHOPS Reservoirs
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Using HVSR measurements from ambient noise in the Burwash Landing Region to determine bedrock depth and unravel its geothermal potential
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Results of crowdsourcing for first arrival picking of earthquakes: lessons learned

Serafim Grubas 91 May 16, 2:45 PM

Montney Review of all Refracs Including the Failures

Tim Leshchyshyn 2 May 16, 2:55 PM

Recovering Critical Minerals Via Recycling Fracking Water

Brant Zeeman 28 May 16, 2:55 PM

Utilizing Mud loss Zones Within Fractured Carbonate Formation for Effluent Water Disposal

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Application of magnetotelluric data to geothermal exploration at Watson Lake, Yukon

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Flooding and Regression of the Middle Mannville Moosebar/Clearwater Sea - Paleogeography and Depositional Trends

Mike Sherwin 23 May 16, 2:55 PM

Modelling the Devonian Shale Basin of central NWT

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Revisiting the geothermal potential of the Dehcho Region in NWT: New data from old wells

Emily Smejkal 32 May 16, 2:55 PM

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Unique In Situ Soil Remediation to Treat Oil and Produced Water Contamination vs Conventional Remediation

Angela Vande 47 May 16, 2:55 PM

What have we been talking about? A data-analytics retrospective on Geoconvention

Matthew Caddel 92 May 16, 2:55 PM

A case study of renewable natural gas production at a cattle feedlot in Alberta: environmental, technical and policy analysis

Elena Temnikova 29 May 16, 3:05 PM

Advanced Real-Time Geo-Engineering Completion Optimization for Fractured Wells: Field Case Study in Montney/Duvernay

Andrew McMurray 3 May 16, 3:05 PM

Geothermal Resource Exploration in DRC: A Country Update

Wisdom Kambale Kavyavu 36 May 16, 3:05 PM

Applications of Forward Stratigraphic Modelling in Modern Settings

Korhan Ayranci 24 May 16, 3:05 PM

Geology of the Canadian Arctic Islands and Arctic Alaska restored to Jurassic relative positions using GIS tools

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International Geological Congress: Leveraging Canadian geoscience to accelerate the evolution of low-carbon energy systems

David Eaton 84 May 16, 3:05 PM

Seismic Fault Detection using Neural Networks

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Time Slices Assisting in De-Risking the Traps by Reducing Uncertainties Associated with Faults Generated by Transnational Tectonics, Lower Indus Trough, Pakistan

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In-situ Stress Estimation around the Kiskatinaw Seismic Monitoring and Mitigation Area

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New evidence of carbonate cementation in the Hibernia Formation, Hibernia field, offshore Newfoundland: implications for reservoir quality

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Oil Sands Tailings; Accelerated Dewatering and Oil Stripping

Angela Vande

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Overview of potential lithium sources in the WCSB

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Emily Harder

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Time-lapse FWI using simultaneous sources

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Well Tie Tutorial and its importance in Seismic Interpretation and Inversion

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Paleotopographic highs and incised valleys at the top of the Middle Ordovician Hawaz Formation, Murzuq Basin, SW Libya: New insights from high-resolution seismic attributes	Aiman Ezzaroug	95	May 17, 2:45 PM		
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Christa Williams
David Murfitt

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Preconditioning least-squares migration with a deep-learning inverse Hessian approximation

Kristian Torres

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Investigating Noise Propagation in Urban Environments using Spectral Element Method: A Comparative Study of Train Horns and Church Bells

Pedro Lapietra Garcia

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Discrete wavelet transform application in a CNN-based reverse time migration with multiple energy

Shang Huang

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Exploring the Possibility of Utilizing Seismic-While-Drilling and Full-waveform Inversion to Enhance Drilling Program Management

Jinji Li

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Mineralogy Classification Comparison to Empirical Log Relationship and Implication for Physics Informed Machine Learning

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True scattering attenuation for monitoring injected CO₂

Yichuan Wang

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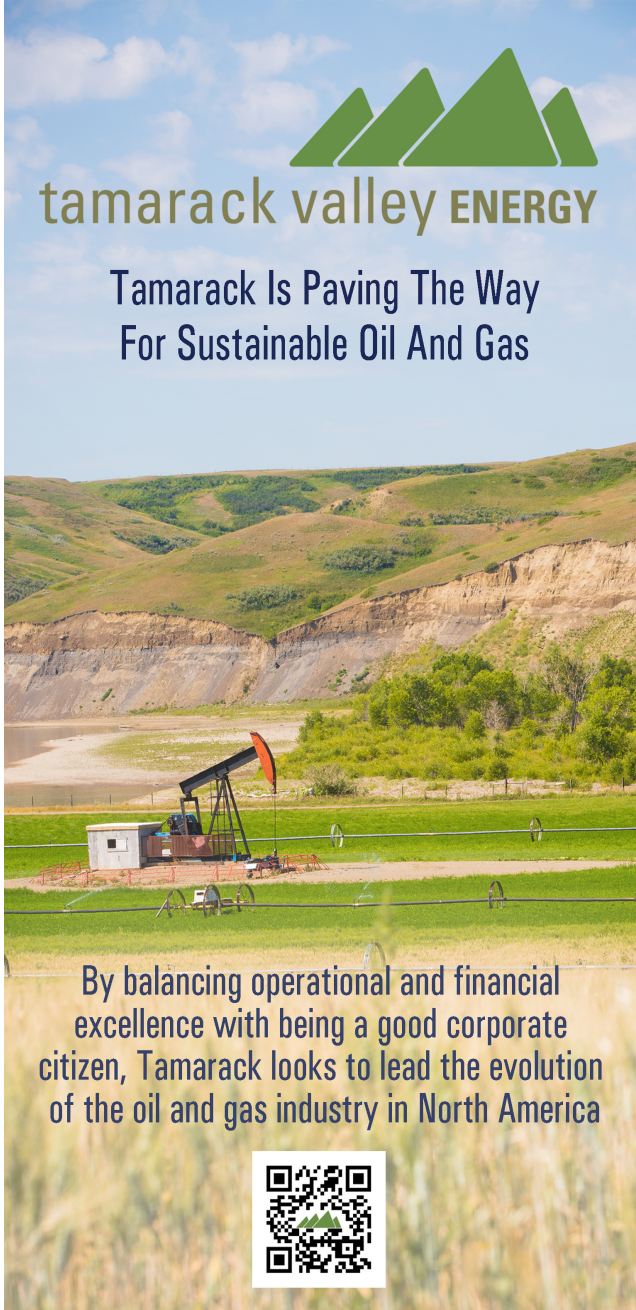
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Precision Geosteering in the North Duvernay Formation

Calin Dragoie

75


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MONDAY MORNING

Telus 101-102		Telus 104-105		Glen 201-202		Glen 203-204	
	Fracture Identification from Seismic data Session Chairs: Marco Perez and Benjamin Roure	Global Geothermal Advances Session Chairs: Robinson Olugbemiro and Catherine Hickson		Back to Basics: Geophysics Session Chairs: Andrew Mills and Kelsey Mah		Induced Seismicity: Technical Developments Session Chairs: Adam Baig and Courtney Lucente	
8:35-9:00	Multi-scale numerical method for multiphase flow in fractured reservoir	Eavor-Loop™ Tilburg, Netherlands: A Closed-Loop Geothermal System for District Heating Use		Choosing the Right Seismic Acquisition Geometry for Your Survey		A statistical approach to test spatial association hypotheses for induced seismicity distributions	
	Hong Li	Stephen Longfield		Mostafa Naghizadeh		David Eaton	
9:00-9:25	New Prospective in Identification Karst Features in Miocene Carbonate Reservoirs of Central Luconia-Malaysia	De-risking Geothermal for Direct-use Heating in Canada: Lessons Learned from Europe		What does Fresnel fold mean?		"Act Naturally" - comparing natural and induced seismicity in west-central Alberta	
	Abd Al-Salam Al-Masgari	Gord Brasnett		Michael Hons		Kienan Marion	
9:25-9:50	Seismic Fault Detection using Neural Networks	Geothermal mapping and remote sensing of thermal anomalies at Grændalur area, Hveragerði, SW Iceland		Seismic Refraction Survey Design		Annual variation of Gutenberg-Richter parameters in Northeastern British Columbia	
	Ayda Azad Khorasani	Patrick Kant		Adam Peake		Raisha Pradisti	
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS						
10:35-11:00	Reservoir Characterization of Faults and fractures of granitic basement Cuu Long Basin, offshore Vietnam	Distributed Acoustic Sensing Analysis in the FORGE Geothermal Case Study		Airborne and Ground-Based TEM Methods in the Mining Industry: Advantages, Pitfalls, and Limitations		Benchmarking and Validation of Automated Real-Time Seismic Event Detection	
	Azer Mustaqeem	Naimeh Riazi		Drew Fossen		Adam Baig	
11:00-11:25	Natural fractures in the shale gas reservoir of the Duvernay Formation, Kaybob area, Alberta	Assessment of reservoir quality and heterogeneity in Middle Buntsandstein Sandstones of Southern Netherlands for deep geothermal exploration		Well Tie Tutorial and its importance in Seismic Interpretation and Inversion		Estimates of performance model factors for passive microseismic SADAR phased arrays at the Newell County Facility	
	Guido Garcia Rodriguez	Husnain Yousaf		Gabriela D’Aubeterre		Paul Nyffenegger	
11:25-11:50	Modelling Fractures in Rocks						
	Marco Perez						

MONDAY MORNING (continued)

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MONDAY AFTERNOON

Glen 201-202		Glen 203-204	Glen 205
	Seismic monitoring for mining applications Session Chair: Ben Witten	Induced Seismicity: Managing Industry Risks Session Chairs: Jonathan Winsor and Neil Taylor	Core logging through the lens of Machine Learning and Deep Learning Session Chairs: Shervin Azad and Shervin Manzuri
1:25-1:50	Dispersion analysis of guided waves observed on microseismic records in an underground mine Himanshu Barthwal	Structural Connectivity: A Critical Part of the Induced Seismicity Puzzle in The Montney Formation, BC Steve Rogers	Automated Vein Segmentation and Characterization from Core Imagery using Deep Learning Sam Sattarzadeh
1:50-2:15	Interferometric monitoring of the Bayou Corne sinkhole Ben Witten	Physics-informed deep learning to forecast expected maximum magnitude during hydraulic fracturing Ziyan Li	Machine versus Human - Imagery Geotechnical Data Collection Jan Jaroling
2:15-2:40	Induced Mechanism of Rockbursts in Deep Underground Mining Jian Deng	Integration of Ground Motions into Induced Seismicity Risk Management in the Kiskatinaw Area, Northeast B.C. Mark Novakovic and Adam Baig	Predicting Facies Using Logged Core, a Sequence of Random Forests and a 3D Seismic Dataset Sam Muller
2:40-3:05	Statistical and clustering analysis of microseismicity from a Saskatchewan potash mine Mohammadamin Sedghizadeh		
3:30-4:30	OPENING KEYNOTE		

MONDAY AFTERNOON (Continued)

	Glen 206	Glen 208-209	Telus 104-105
	Water Disposal Session Chairs: Walter Loogman and Curtis Fairhurst	Indigenous Partnerships in Science Session Chairs: Jordan Phillips and David Eaton	Geothermal in Alberta Session Chairs: Louis Chabot and Catherine Hickson
1:25-1:50	Utilizing Mud loss Zones Within Fractured Carbonate Formation for Effluent Water Disposal David Olutusin	Navigating the Challenges of Small Modular Reactors: A Comprehensive Study of Site Design, Policy, Economics, and Community Integration in Canada's Nuclear Energy Transition Thomas de Boer	Geothermal Energy as a Heat Source for Oil Sands Processing in Alberta: Greenhouse Gas (GHG) Emissions Quantification Hasmik Asmaryan
1:50-2:15	If I could turn back time: Is seismicity generated after a critical state transition during sustained water disposal? Rebecca Salvage	A case study of renewable natural gas production at a cattle feedlot in Alberta: environmental, technical and policy analysis Elena Temnikova	Building decarbonization applications from the subsurface: Calgary building developers are leaning into geothermal technologies Nicholas Fry
2:15-2:40	Ambient noise monitoring in a region of disposal-induced seismicity, Central Alberta Jesus Rojas-Parra	Techno-economic Feasibility of Storage of Hydrogen Produced from Bruce Nuclear Power Plant, Ontario Raisha Pradisti	Alberta Regulatory Update and Implications for Geothermal Projects Emily Smejkal
2:40-3:05		Recovering Critical Minerals Via Recycling Fracking Water Brant Zeeman	
3:30-4:30	OPENING KEYNOTE		

TUESDAY MORNING

	Telus 101-102	Telus 104-105	Telus 106	Glen 201-202
	Atlantic Canada Offshore Exploration Session Chairs: Wen Lin and Yong Hua	Sedimentology, Stratigraphy and Paleontology, part 1 Session Chairs: Sean Fletcher and Erin Pemberton 	Seismic Acquisition Session Chairs: Mostafa Naghizadeh and Howard Watt	Active and Passive Seismic Monitoring of CO2 Storage and Plume Migration Session Chairs: Rob Kendall and Don Lawton 
8:35-9:00	Geological Survey of Canada Qualitative Petroleum Resource Assessments, process and examples from Atlantic Canada Elizabeth Atkinson	Volcaniclastic Deep-water Facies and Architecture of an Arc Adjacent Lobe Fan System: The Mistaken Point Formation, St. John's, Newfoundland Grace Khattrine	New multi-component strain-tensor results from an experimental directional fibre-optic sensor Kevin Hall	Rapid-repeat time lapse seismic VSP imaging of CO2 injection Xiaohui Cai
9:00-9:25	Hydrocarbon seep-associated microbes for offshore oil and gas exploration Carmen Li	Regional stratigraphy and U-Pb detrital zircon geochronology of the Lower Cretaceous Mannville Group, Alberta: insights into sediment transfer in an uplifted foreland basin Benjamin Daniels	Optimal OBN acquisition design based on reinforcement learning approach Yi Guo	VSP imaging of upward migration from CO2 injection Brendan Kolkman-Quinn
9:25-9:50	Pelles A-71: Exploring in the Deepwater Flemish Pass Basin Jon Dola	Absolute ages and stratigraphic timing for late-postglacial mass-failures in St. Anns Basin, offshore Nova Scotia Cameron Greaves	Non-uniform Dispersed Source Arrays for broadband seismic acquisition: A reconstruction approach. Joaquín Acedo	A time-lapse multi-offset, multi-azimuth VSP acquired as a candidate for low-cost monitoring of CO2 injection and storage Kristopher Innanen
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS			
10:35-11:00	Influence of Salt Tectonics on the Deposition of Deep-Water Marine Deposits, Jeanne d'Arc Basin Nash Hayward	Ancient Oyster Beds of Alberta: Overlooked but Geologically Significant Jon Noad	Building Blocks - Considerations for high-fidelity broadband land seismic data acquisition Howard Watt	Microseismic monitoring using SADAR arrays at the Newell County carbon storage facility: what have we learned in a year? Kevin Hutchenson
11:00-11:25	Sequence stratigraphy of the Jurassic and Cretaceous sequences of the Scotia Basin, Atlantic Canada Lucia Vivanco	Hydrogen (H2) and CO2 storage, Lotsberg Formation Ronald Weir	EcoSeis: Can Lower Environmental Footprint Seismic Provide Accurate Rock Properties and be Operationally Efficient? Alyson Birce	Sensitivity of Cross-well Seismic Measurements to Wellbore Materials, Sensor Placement and Sensor Type: A Numerical Investigation Based on the Aqistore CO2 Storage Site Chris Hawkes
11:25-11:50	Structural Analysis and Kinematic Reconstruction of Deformation along the Nova Scotia Passive Margin, Atlantic Canada Eren Berberoglu	Calibration of Depositional Sequences of the Lower Cretaceous Clastics with the Global Sea Level Curves, Lower Indus Platform Basin, Pakistan Shakeel Ahmad	Improving Seismic Acquisition through Seismic Inversion Carmen Dumitrescu	Sh reflections and density estimation for CO2 monitoring Scott Leaney
11:50-12:15		Visualizing Sedimentological Variability Near Vulnerable NASA Infrastructure at Cape Canaveral, FL and Wallops Island, VA. Sean Fletcher		Focused seismic CO2 monitoring: from detection to characterisation Victoria Brun

TUESDAY MORNING (continued)

	Glen 203-204	Glen 205	Glen 206	Glen 208-209
	Petroleum Geochemistry Session Chairs: Zied Ouled Ameur and Baz Bennett	Decision strategies, tactics, and case studies in new industries, including Carbon Capture, Helium, and Cleantech Session Chairs: Lee Hunt and Eric Street 	Geothermal in Northern Canada Session Chairs: Catherine Hickson and Emily Smejkal	Bridging The Gap - Geoscience & Engineering, part 1 Session Chairs: Brian Schulte and Evan Brown
8:35-9:00	Geochemical Evidence for a non-Tithonian source for oil staining in northern Scotian Shelf wells Martin Fowler	Uncertainty in a CCS project: What critical geophysical information do you need to mitigate financial failure? John Duhault	Advances in geothermal research in the southern NWT: toward reservoir characterization and geothermal potential estimation. Viktor Terlaky	Near surface geophysics for geohazard risk identification for pipelines Patrick Mah
9:00-9:25	Geochemical Characterization of a Gas Condensate Accumulation: A Case Study from the Middle East Norka Marcano	Going Old-School: Helium Exploration in SW Saskatchewan David Allen	Nahanni Butte, NWT - Right Sizing Geothermal Development Catherine Hickson	Near Surface Geophysical Investigation for Geotechnical Geohazard Assessment Using Seismic Refraction and Resistivity Survey Victoria Rabczak
9:25-9:50	The impact of natural supercritical CO2 on the chemical composition of in-reservoir oils Thomas Oldenburg	Geotechnical and economic strategies in Helium Exploration: A case study in WCSB and Montana Genga Nadaraju	Revisiting the geothermal potential of the Dehcho Region in NWT: New data from old wells Emily Smejkal	Mining induced stress change monitoring at Rocanville potash mine Lingen Jiang
9:50-10:35				
10:35-11:00	Mercury concentrations in produced gas, condensate, water and rock from the Montney Formation Mathew Fay	Subsurface methodologies and CCS: similarities and differences Lee Hunt	Superhot rock energy and mapping depths to 450°C: Mapping, uncertainties and the potential of deep geothermal in Canada Josh Sellars	Why do energy wells' fail? Insights of sourcing from Surface Casing Vent gas carbon isotope geochemistry Gabriela Gonzalez Arismendi
11:00-11:25	Elevated bacterial endospores associated with thermogenic hydrocarbon seeps in deep sea sediments Jayne Rattray	A Strategic Approach to Facility Carbon Capture Planning, part 1 M Kent Burkholder	Using HVSR measurements from ambient noise in the Burwash Landing Region to determine bedrock depth and unravel its geothermal potential Fernando Berumen-Borrego	Multi-Disciplinary Geochemical Analysis and Quality Control for Large Datasets Khanh Do
11:25-11:50	Oil-Oil and Oil-Source Correlation and the Origin of the Heavy Oil and Bitumen Accumulations of North Eastern Alberta, Canada Barry Bennett	A Strategic Approach to Facility Carbon Capture Planning, part 2 M Kent Burkholder	Decarbonizing Heat in Canada's North Catherine Hickson	Geotechnical Centrifuge Modeling of CO2 EOR in CHOPS Reservoirs Daniel Cartagena-Pérez

TUESDAY AFTERNOON

Telus 101-102		Telus 104-105	Glen 201-202
	Methane Emission Reductions: Success Stories and Trends Session Chairs: Negar Nazari and Zachary Cunningham	Sedimentology, Stratigraphy and Paleontology, part 2 Session Chairs: Sean Fletcher and Erin Pemberton	Western Canada Sedimentary Basin Atlas 2027 Session Chairs: Greg Lynch and Neil Watson 
1:25-1:50	The Critical Role of Natural Gas for Global Energy Security and the Energy Transition Tako Koning	Storm-flood-dominated delta A new type of delta in stormy Oceans Wen Lin	Atlas 2027 Project: Update and Modernization of WCSB Geological Atlas Gregory Lynch
1:50-2:15	Identification and characterization of super emitter surface casing vent flows in Alberta Negar Nazari	Transgressive Coastal Sedimentation in Carbonate Environments: Are Metre-scale Shallowing-upward Cycles Upside Down? Robert Dalrymple	Atlas 2027 - the Mesoproterozoic Purcell Supergroup Margaret McMechan Brian Pratt
2:15-2:40	Application of faulty energy wells' gas carbon isotope data to allocate and reduce methane emissions in the WCSB Gabriela Gonzalez Arismendi	Enhanced Stratigraphic Correlations in Shales Sequences Using Extract Dna From Endolithic Microorganisms, Quebec, Canada Jean-Sebastien Marcil	Geologic Map, Well and Seismic database Developments for Structural Assessment of the Cordilleran Foreland Belt Mark Cooper
2:40-3:20	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS		
3:20-3:45	Improving methane oxidation in energy well leakage by biofilters: an exploratory lab study DINU ATTALAGE	Utilizing planform reconstructions to constrain anomalous point bar heterogeneity Trevin Ferens	Natural and induced seismicity in the Western Canada Sedimentary Basin David Eaton
3:45-4:10	Commercialization Potential of Industry-Specific Methane Biofilters (MBFs) Devika Subash	Review of the Structure and Stratigraphy of Phanerozoic Deposits in the Mackenzie Delta, NWT, Canada Yaqub Adepoju	Teasing out Early and Middle Jurassic Pacific margin accretionary tectonics in the Canadian western interior early foreland system Terence Poulton
4:10-4:35	Learnings from the Alberta Methane Emissions Program (AMEP) Adam Hayman	Ichnological variability of a Cretaceous shelf-edge delta: the Missisauga Formation, Offshore Nova Scotia, Canada Shachi Bajpai	Atlas 2027: Regional Cambrian-Lower Ordovician Maps Integrating the Northern and Southern Reaches of the WCSB Gregory Lynch
4:35-5:00			

TUESDAY AFTERNOON (continued)

	Glen 203-204	Glen 205	Glen 206	Glen 208-209
	CCUS - Uncovering the Potential Session Chairs: Francis Morin and Richard Baker 	Seismic Processing Session Chairs: Shabeer Ahmed and Khalid Amin Khan	Helium Session Chairs: Calin Dragoie and Duncan Mackenzie 	Bridging The Gap - Geoscience & Engineering, part 2 Session Chairs: Brian Schulte and Evan Brown
1:25-1:50	Highlights of the NE BC Geological Carbon Capture and Storage Atlas Natalie Sweet	Deblending of simultaneous source data Faranak Mahmoudian	The formation of low-carbon, N2-dominated helium gas fields Anran Cheng	Multi-disciplinary evidence of upward migration at the CMC Newell County Facility Marie Macquet
1:50-2:15	Integrated Reservoir Study for Successful CO2 Storage Planning: An Alberta Case Study of Depleted Gas Pools, Current and Future Readiness Alex Renaud	Seismic data interpolation by anti-aliasing 5D greedy Radon transform Juefu Wang	Geochemical Exploration for Helium Deposits Using Soil Gas and Groundwater Sample Media David Seneshen	Chart Toppers: The Best Wells of 2022-2023 Christopher Podetz
2:15-2:40	Prospectivity methodology for regional CO2 storage potential Joanna Cooper	Parametric dictionary learning for extracting basis functions that resemble local seismic waveforms Mauricio Sacchi	Understanding the Subsurface Helium System of Saskatchewan with a Focus on Traps/Seals via Volatiles Analysis of Helium and Other Compounds in Legacy Cores Christopher Smith	Enhancing the Prediction of Production by Incorporating Near-Wellbore Seismic Volumes David Gray
2:40-3:20	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS			
3:20-3:45	Quantifying Risk for Sequestration Success - A Look At Potential CO2 Storage Hazards and Complications in Southern Louisiana Evan MacDonald	First arrival travel time modeling using random grids Alejandro Quiaro	Helium in Alberta - Bringing a Critical Commodity On Stream Brad Hayes	Integrated Geoscience Workflow for Drilling Optimization and Enhanced Oil-sand Production Carmen Dumitrescu
3:45-4:10	The Gog Quartzite: CCS Analogue Extraordinaire and Potential Target Jon Noad	Common image gathers from blended data Ziguang Su	Expanding the Giant: A Review of the Hugoton Area's Gas Fields' First 100 Years of Development in the Permian's Hydrocarbon-Helium Gas System. Matthew Fox	Predicting Microseismic Event Density before Drilling David Gray
4:10-4:35	Appalachian CO2 Storage Potential in the Oriskany Sandstone Brad Johnston	Study on Seismic Response Characteristics of Maokou Formation in Jiulongshan Area Forward Based on Wave Equation Xingyu Wen	Helium and Low-Hydrocarbon Reservoir in San Juan County, Utah: Unconventional Methods to Detect Reservoir Zonations and Gas-Water Contacts Christopher Smith	Near wellbore heterogeneity modeling workflow to derive directional permeabilities for static reservoir models Xintian Luo
4:35-5:00			In Search of a Helium Standard: Valuations and Regulations in Global Capital Markets Jeffrey Aldrich	

WEDNESDAY MORNING

	Telus 101-102	Telus 104-105	Telus 106	Glen 201-202
	Reservoir Characterisation, part 1 Session Chairs: Mahbub (Bob) Alam and Haitham Hamid	CCUS Technical Focus Session Chairs: Marie Macquet and Brendan Kolkman 	In Situ Stress in the Western Canada Sedimentary Basin Session Chairs: Pat McLellan and Chris Hawkes	Lithium Session Chairs: Eric Pelletier and Yongyi Li 
8:35-9:00	Characterization of multiple formations for gas production and CO2 sequestration Adriana Gordon	Seismic reservoir characterization of an aquifer gas storage (CCUS) in Denmark: Part 1 Satinder Chopra	An Improved DFIT Methodology: A Primrose Case Study Dale Walters	New Energy Challenges: Exploring for Lithium Kathleen Dorey
9:00-9:25	Facies-Based Modelling of Reservoir Properties from Seismic Partial-Angle Stacks John Pendrel	The effect of natural fractures on CO2 injection and storage capacity in tight sandstone reservoir, St. Lawrence Platform, Quebec Elena Konstantinovskaya	Using Fracture Extension Pressure from (Treatment) Stage Fall-Off Analysis to Accurately Predict Closure Pressure & Identify Anomalies in the NE BC Montney Kirby Nicholson	Overview of potential lithium sources in the WCSB Brendan Bishop
9:25-9:50	How rock physics, saturation-height modelling and inversion attributes can help resolve the permeability structure – an example from a fluvio-marine sandstone reservoir Draga Talinga	What we have learned over 20 years of CCUS projects Rick Schrynemeeckers	Status Report on the Updated In Situ Stress Chapter of the 2027 Geological Atlas of the Western Canada Sedimentary Basin Patrick McLellan	Lithium exploration in Saskatchewan: New data from the 2022 sampling season as well as new data from recent industry exploration. Gavin Jensen
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS			
10:35-11:00	Direct probabilistic inversion under VTI conditions Raul Cova	Critical Geomechanical Parameters in CCS Projects: Essential Experimental Measurements Arian Velayati	The Impact of Salt Caverns on Stress in the Lotsberg Formation Alex Reed	Spatial Distribution Of Lithium In Saline Brines (Duperow Aquifer) In Southeast Saskatchewan. Chelsey Hillier
11:00-11:25	Seismic reservoir characterization of an aquifer gas storage (CCUS) in Denmark: Part 2 Satinder Chopra	Practical Surveillance for Carbon Capture and Storage using Analytical Methods and Flow Simulation Jesse Prefontaine	Statistical inverse analysis of the RGP tests at Primrose-Wolf Lake oil sands field Rick Chalaturnyk	Laboratory Investigation for Critical Minerals, Including REE and Lithium in an Unconventional Source - Oil Sands Tailing Mashrur Zaman
11:25-11:50	Phase decomposition and its applications Satinder Chopra	Thermoelastic effects during CO2 injection into clastic deep-aquifer CCS storage reservoirs. Paul Tawiah	Uniform NE-SW Compression in the Devonian Grosmont Formation in NE Alberta: Constraints on Stress Directions and Magnitudes from Analysis of Drilling Induced Tensile Fractures Thomas Niederhuber	
11:50-12:15				

WEDNESDAY MORNING (continued)

	Glen 203-204	Glen 205	Glen 206	Glen 208-209
	Canadian Oil Sands Session Chairs: Lindsey Abbott and Jordan Curkan 	Seismic Inversion for Reservoir Characterization Session Chairs: Carmen Dumitrescu and Jeff Larsen 	Machine Learning and AI Session Chairs: Akshay Gulati and Kristian Torres Bautista 	Speaker Series: Technical Talks from CEGA and CSEG 2022 Award Recipients, part 1 Session Chairs: Alison Essery and Nanna Eliuk 
8:35-9:00	Fluid Characterization using 4D Simultaneous AVO and Rock Physics Inversion Wendell Pardasie	Using AVO inversion to assess seismic acquisition geometries Raul Cova	Geological reservoir property classification using artificial neural networks with optimal selection of seismic attributes Moslem Azarpour	Energy Education Brad Hayes
9:00-9:25	Using thermophilic bacteria to lower emissions and enhance production during steam-assisted gravity drainage Casey Hubert		Combining Seismic Processing with Machine Learning Daniel Trad	Measurement, Monitoring and Verification (MMV) for large-scale geological carbon storage projects Don Lawton
9:25-9:50	FWI for the Steam Chamber Imaging in Oil Sands SAGD Operation - Investigating the Application of FWI on Multiple Datasets Weizhong Wang	Quantitative Implementation of Geostatistical Inversion for Thin Bed Delineation and Description. Qazi Imran	Getting AI to Abide by Your Interpretations David Gray	Energy Transition: An Interview with Scott Tinker Scott Tinker
9:50-10:35				9:50am Mike Cecile Award Presentation
10:35-11:00		Time-Lapse EEI Inversion, a key monitoring tool in unconventional reservoirs Naimeh Riazi	The dual representation and its application to seismic reservoir analysis Brian Russell	Sustainable and Innovative Geophysics Acquisition Andrea Crook
11:00-11:25		Quantitative time-lapse interpretation - Reducing uncertainty with multiple attributes Carl Reine	Neural networks for DAS time-lapse imaging at CaMI-FRS Jorge Monsegny	Operationally focused Geophysics in Extraction Industries: an Exciting Career Craig Funk
11:25-11:50		Exploring the Possibility of Utilizing Seismic-While-Drilling and Full-waveform Inversion to Enhance Drilling Program Management Jinji Li	Seismic Well-tie via Deep Learning Rongfeng Zhang	Geophysical Water Exploration and Self-Supply in Post-Conflict Uganda Paul Bauman
11:50-12:15			Rock Facies Imbalanced Classification with Over-Sampling and Under-Sampling Techniques Ryan Mardani	

WEDNESDAY AFTERNOON

Telus 101-102		Telus 104-105		Telus 106	Glen 201-204
	Reservoir Characterisation, part 2 Session Chairs: Mahbub (Bob) Alam and Haitham Hamid	CCUS Monitoring, Measurement and Verification Session Chairs: Dave Hills and Anne Halladay		Petrophysics Session Chairs: Nasir Rahim and Kelly Skuce	Value in Integrated Geosciences Session Chairs: Dennis Ellison and
1:25-1:50	Improved Technology for Alkaline-Surfactant Polymer Flooding (ASP); Relevance for Canadian Reservoirs Jeffrey Southwick	Risk Management Plan - The Key to a Successful CCS Project Francis Morin	Visual Evidence of Iron Precipitation and Dolomite Dissolution in Low-permeability Siltstones due to Interaction with Hydraulic Fracturing Fluids Amin Ghanizadeh	<p>GeoConvention is excited to welcome a diverse panel for discussion on the value that integrated geoscience brings to the energy industry, both within oil and gas and new energy alternatives. Join the panel discussion moderated by Dennis Ellison to knowledge share with industry leaders and add to the discussion to gain insights to ongoing work and past integration success stories.</p> <p>Panelists: Lori Barth Laurie Weston John Duhault Lee Hunt</p> <p>Moderator: Dennis Ellison</p> <div>learn more</div>	
1:50-2:15	Application of industrial CT scanning to characterize physical structures, biogenic structures and fracturing in fine-grained reservoir rocks John-Paul Zonneveld	Monitoring of CO2 stored in underground geological reservoirs using surface seismic data Fabien Allo	A Widespread Challenge: Differentiation of Illite Clay from Muscovite Mica for Resource Exploration and Development Graham Spray		
2:15-2:40	Hydrothermal alteration controlling reservoir quality in the Lockhart and Sakesar formations in two Pakistan exploration wells revealed and confirmed by a combination of XRF - petrography and SEM/EDX - a view of the complementarity of the tools Jean-Yves Chatellier	Semi-continuous electrical resistivity tomography for geological carbon storage monitoring - upward migration evidence at the CMC's carbon storage pilote site Marie Macquet	Experimental Evaluation of Relative Permeability in Low-Permeability Rocks: Examples from the Montney and Bakken Formations (Canada) Amin Ghanizadeh		
2:40-3:20 COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS					
3:20-3:45	Capturing of fine-scaled reservoir heterogeneity through Hyperspectral core scanning Zachary Toews	Improving MMV of geological CO2 storages with consideration of geochemical reactions: a review of the state of the art and challenges Albert CUI	Recommended method to analyzed cuttings by XRF -applications to Montney horizontal wells after learning from vertical and horizontal wells from a variety of formations Jean-Yves Chatellier		
3:45-4:10	Quantitative fluorescence technology in tight reservoirs application research Qinlian Wei	Well Integrity Monitoring at CCS Projects: A Case Study Kirk Osadetz	Using Natural Language Processing to Convert Mud-Log Chip Descriptions to Useful Data Tables Marcelo Guarido		
4:10-4:35	Spend Pennies Earn Hundreds of Dollars Extra Mustafa Pasha				
4:35-5:00					

WEDNESDAY AFTERNOON (continued)

Glen 205		Glen 206	Glen 208-209
	Seismic Imaging – Full Waveform Inversion Session Chairs: Svetlana Bidikhova and Rafael Manenti	Microseismic monitoring: Technology and case studies Session Chairs: Adam Baig and Natalia Mvchaluk 	Speaker Series: Technical Talks from CEGA and CSEG 2022 Award Recipients, part 2 Session Chairs: Alison Essery and Nanna Eliuk
1:25-1:50	Towards improving crosstalk suppression in multiparameter FWI by decorrelating parameter classes Mariana Lume Larez	Use of ML in CSS micro-seismic monitoring workflow in Cold Lake, AB Simona Costin	Diagenetically-controlled H2S and pyrite in the Lower Triassic Montney Formation, Peace River Region, Western Canada Mastaneh Liseroudi
1:50-2:15	FWI in Image Domain using Beam Tomography Alexander Popovici	Microseismic detection at CaMI.FRS (CO2 injection in a shallow target) Davood Nowroozi	Outcrop and Subsurface Reservoir Characterization of the Duvernay Formation in the East Shale Basin: Using Traditional Methods to Tackle New Challenges Henry Galvis Portilla
2:15-2:40	Preconditioning least-squares migration with a deep- learning inverse Hessian approximation Kristian Torres	Comparison of sparse Gabor-based methods for detection of microseismic events Hanh Bui	Initiation and Evolution of a Forearc Basin - Nanaimo Group, Georgia Basin, British Columbia, Canada Kristian Girotto
2:40-3:20			
3:20-3:45	Seismic imaging quantum style Jorge Monsegny	Use of engineering data for microseismic event pattern analysis and determination of fracture height Tahmina Mirzayeva	The Variogram Basics: A visual introduction to one of the most useful geostatistical concepts Evan Brown
3:45-4:10	Well-log parameterized full waveform inversion at the CMC Newell County facility Ninoska Amundaray	Event locations: Speeding up grid searches using quadratic interpolation Hanh Bui	Changing geophysical priorities for CCS projects – balancing technical rigour with cost effective solutions Richard Gray
4:10-4:35	Paleotopographic highs and incised valleys at the top of the Middle Ordovician Hawaz Formation, Murzuq Basin, SW Libya: New insights from high-resolution seismic attributes Aiman Ezzaroug	Velocity calibration for microseismic monitoring at the Newell County carbon storage facility using SADAR compact phased arrays Elige Grant	The type section of the Canol Formation (Devonian black shale) at Powell Creek: Critical assessment and correlation in the northern Cordillera, NWT, Canada Pavel Kabanov
4:35-5:00	Bandwidth extension of seismic data and its applications Satinder Chopra		

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