

The Michigan Geological Repository for Research and Education, part of the
Michigan Geological Survey at
Western Michigan University, and the
Michigan Oil and Gas Association



Present

Envisioning and Exploring Michigan's Subsurface

November 5, 2025

At the Grand Traverse Resort, Acme, Michigan

9:30-10:00—Registration, coffee, and pastries

10:00-10:05—Sara Pearson, CPG, Michigan Geological Survey Director, will welcome the group. Sara earned her BS degree from Aquinas College and her MS from Western Michigan University (1994). With more than 30 years of experience, Sara leads the Michigan Geological Survey (MGS) by focusing on the mission to advance the geologic knowledge of the state. Under her guidance, the MGS spearheads cutting-edge research and data collection, building a comprehensive understanding of Michigan's resources. Her priorities also include crucial educational support and training, empowering communities and the next generation of geoscience professionals to make informed decisions that foster the sustainable development and protection of Michigan's natural resources.

10:05-10:35—William B. Harrison, MGRRE Research Director, will thank our sponsors and present a discussion of the major tectonic events in Michigan and how they have influenced the sedimentology and structure of producing formations in Michigan. Bill received his PhD from the University of Cincinnati in 1974, founded the MGRRE/Core Lab in 1982, and has authored dozens of papers on Michigan geology.

10:35-11:00—Chris Blessing and **Jordan Gray**, Co-Founders of Missaukee Oil and Gas, will describe the process they use in their E&P efforts in the Michigan Basin. A low-tech, old-school, out-of-the-box-thinking approach has led to some successes, and some failures, but always lessons learned that help navigate the headwinds of a first-gen, start-up oil company in a mature basin. They will describe a hidden gem uncovered in an old, played-out oilfield, show a video of oil flowing from this successful Dundee well, and discuss similar opportunities around the basin. Utilizing existing infrastructure, public information, helpful mentors, common sense, the willingness to try something new, (and a lot of elbow grease) has laid a strong foundation for future growth and basin wide success through a coalition of Michigan operators. Chris received his BS degree in Civil Engineering from Michigan Technical University. Jordan received his BS in Business Management from Davenport University. They founded Missaukee Oil and Gas six years ago and both have extensive oil and gas experience.

11:00-11:25—John H. Fowler, Geologist with Polaris Energy and Lakeside Resources, drawing on a career spanning 50 years, John will review how he integrates diverse geologic and geophysical data across a wide variety of petroleum provinces, focusing always on generating drilling prospects that make economic sense. John earned a BS in geology from Michigan State University and a MS in geology from Western Michigan University and has worked in the Basin professionally since 1975.

11:25-11:45—John Esch, Geologist with the Michigan Geological Survey, and **Ricky Haagsma**, Geo Technician/3D Scanner with the Michigan Geological Survey, will present their 3D-printed model of the Michigan Basin. The model's stackable 3D formation layers snap together, giving you a broad yet visually stunning tactile and easy-to-understand geologic model. You can hold this physical model, rotate it, take it apart and restack the layers to better visualize Michigan's subsurface geology. Please see their poster presentation and models. John Esch received his geology degree from Central Michigan University in 1984 and has worked in the Michigan Basin for 40 years. Ricky Haagsma received his Business Degree from Franklin University in Columbus Ohio in 2018 and has worked in 3D printing for 7 years.

11:45-12:00—MGRRE Presents 2025 Lifetime Achievement Award to William C. Myler, Jr.

12:10-1:10 Lunch served; 12:30-1:00, Adam Wygant, CPG, State Geologist, and Director of the Geologic Resources Management Division (GRMD) in the Michigan Department of Environment, Great Lakes, and Energy (EGLE), will be joined by Field Operations Section Manager **Jim Armbruster**, Permits and

Technical Services Section Manager [Mark Snow](#), and Underground Injection Control, Storage, and Carbon Management Section Manager [Eric Kimber](#) for division update. This GRMD upper management crew will highlight current topics such as the Methane Emission Reduction Program, Orphan Wells, CCUS, and other timely oil and gas topics. They bring over 110 years of combined experience working as geologists in Michigan.

[1:20-1:55—Autumn Haagsma](#), MGRRE Director, and [Amber Conner](#), Paleozoic Geologist, will present “Unlocking Michigan’s Geologic Potential: Research, Resources, and Collaboration.” They will share updates on current research initiatives and progress across the state. They will highlight emerging opportunities for collaboration, new directions in geological research, and pathways for industry engagement with MGRRE. This session promises valuable insights into Michigan’s evolving geoscience landscape and the role of MGRRE in shaping a sustainable future. Dr. Haagsma, who earned her PhD from Miami University with a focus on geologic complexity in carbon capture, utilization, and storage (CCUS), brings over a decade of leadership in developing and managing research projects, industry collaboration, and team building. Amber Conner, with an MS in geochemistry from Ohio University, has extensive experience in subsurface characterization and monitoring. Her current work includes spearheading new CCUS efforts and conducting geochemical analyses of formation fluids and host rocks—critical for understanding mineral resources.

[1:55-2:10—Tom Valachovics](#) and [Matthew Bell](#), Research Geologists with the Michigan Geological Survey, will demonstrate a new website application that they perfected to help you easily search the repository’s immense core collection. Until now, that collection was searchable only in spreadsheet format, and that was a slow process. This new visualization tool gives you a quick overview of where the cores were drilled and lets you ask for a list of cores by formation, location, and/or borehole type. Using that list, you can then find more rock properties by exploring MGRRE’s core analyses, cuttings, mudlogs, and wireline logs. Tom received his BS in geology from Grand Valley State University (2016) and MS in Geology from the University of Toledo (2019). Tom previously worked as a research geologist publishing maps with both the Indiana Geological and Water Survey and the Ohio Geological Survey. Matthew received a BS in Geology from Lake Superior State University (2019) and a MS in Earth Science from Western Michigan University (2022). In addition to his duties at the Michigan Geological Survey, Matt works as an Adjunct Professor for Kalamazoo Valley Community College.

[2:10-2:35—Kevin Jensen](#), Geologist at J&M Energy, Mt Pleasant, MI, will reflect on the Klingenberg 1-33 Traverse Lime exploration well in Allegan County. Traverse Lime fields in southwest Michigan have historically produced with a variety of structural traps. These traps include salt solution features, Niagaran reef drape, and buried hills. Kevin will discuss J&M’s findings from a potential fourth trapping mechanism and the pitfalls encountered. Kevin earned a BS in geology from Central Michigan University and a MS in geology from Louisiana State University. He started his career in the petroleum industry with Chevron in 2012, working unconventional plays in Pennsylvania, Ohio, and Michigan. He has been working in the Michigan Basin with J&M Energy since 2019.

[2:35-3:00—Dan Brugeman](#), Vice President of Engineering and Development at West Bay Exploration, has 25 years of petroleum, natural gas storage, production, and operations experience—spanning basins and formations across the United States and Canada. Brugeman will describe a Department of Energy- sponsored, CO₂-enhanced oil recovery project located in Calhoun County, MI. He will share the strategy, planning, challenges, and benefits of this CO₂ project.

Poster Presentations:

[John Esch](#), Geologist with the Michigan Geological Survey, and [Ricky Haagsma](#), Geo Technician/3D Scanner with the Michigan Geological Survey, will present “Visualizing Michigan Subsurface Geology Using 3D Printed Models.”

[Ashley Scott](#), PhD candidate WMU Department of Geological and Environmental Sciences, will present integrated characterization results for multiple formations across the Michigan Basin, as part of her work to evaluate the efficacy of confining systems for carbon storage. A series of three posters will be presented which includes the Cambrian, Ordovician, and Devonian sections. Co-authors include Moira Burns, Alex Kominek, and Mallory Price, students WMU Department of Geological and Environmental Sciences.

[Lisa Wininger](#), Manager of Education and Outreach, Michigan Geological Survey, will present, “Michigan Geological Survey: Reengaging Michigan with Core Kids: Geo Learning, Geo Outreach, and Geo Career Awareness.”

Max Copus, master's student WMU Department of Geological and Environmental Sciences, will present "Characterization of Ordovician Formations from the Prevost 1-11 Well Located in Bay County, Michigan, for Carbon Storage Confining Efficiency." This presentation will share integrated characterization results of the St. Peter Sandstone, Glenwood, Black River, Trenton, and Utica Shale formations, evaluating their roles in carbon storage confinement.

Cailey Treece, undergraduate geology student at Central Michigan University, will present geomechanical assessment of Ordovician caprocks in the Michigan Basin using instrumented scratch test, conducted as part of collaborative project with WMU and MGS to evaluate the efficacy of confining systems for carbon storage. Co-authors include Natalia Zakharova, associate professor of geophysics at CMU Department of Earth and Atmospheric Sciences, and MGRRE project team.

Workshop Location: Grand Traverse Resort, 100 Grand Traverse Village Blvd., Acme, Michigan, 49610 Phone: (231) 534-6000 Website: grandtraverseresort.com

Registration fees: The early bird registration fee is \$205 until October 22nd. It's \$245 after that.

To Register, just call Linda Harrison at (269) 387-8642 or Jennifer Trout at (269) 387-8633 and use a Visa, MasterCard, Discover or American Express card. We will send your registration confirmation by email. Let us know if you want a PDH continuing education certificate.

Or, you can pay by check by filling out the registration form below and mailing it to us.

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Registration fees:

Early bird rate: \$205, ends October 22nd; After October 22nd: \$245.

Please make your check payable to "WMU Geosciences" and mail it to:

Workshop—Harrison at MGRRE
Geological and Environmental Sciences Dept.
Western Michigan University
5272 W. Michigan Avenue
Kalamazoo, MI 49006

Registration Refunds: Registration fees are refunded in full if cancellation is received in writing no later than October 22nd and if we are able to fill your spot with another registrant.