



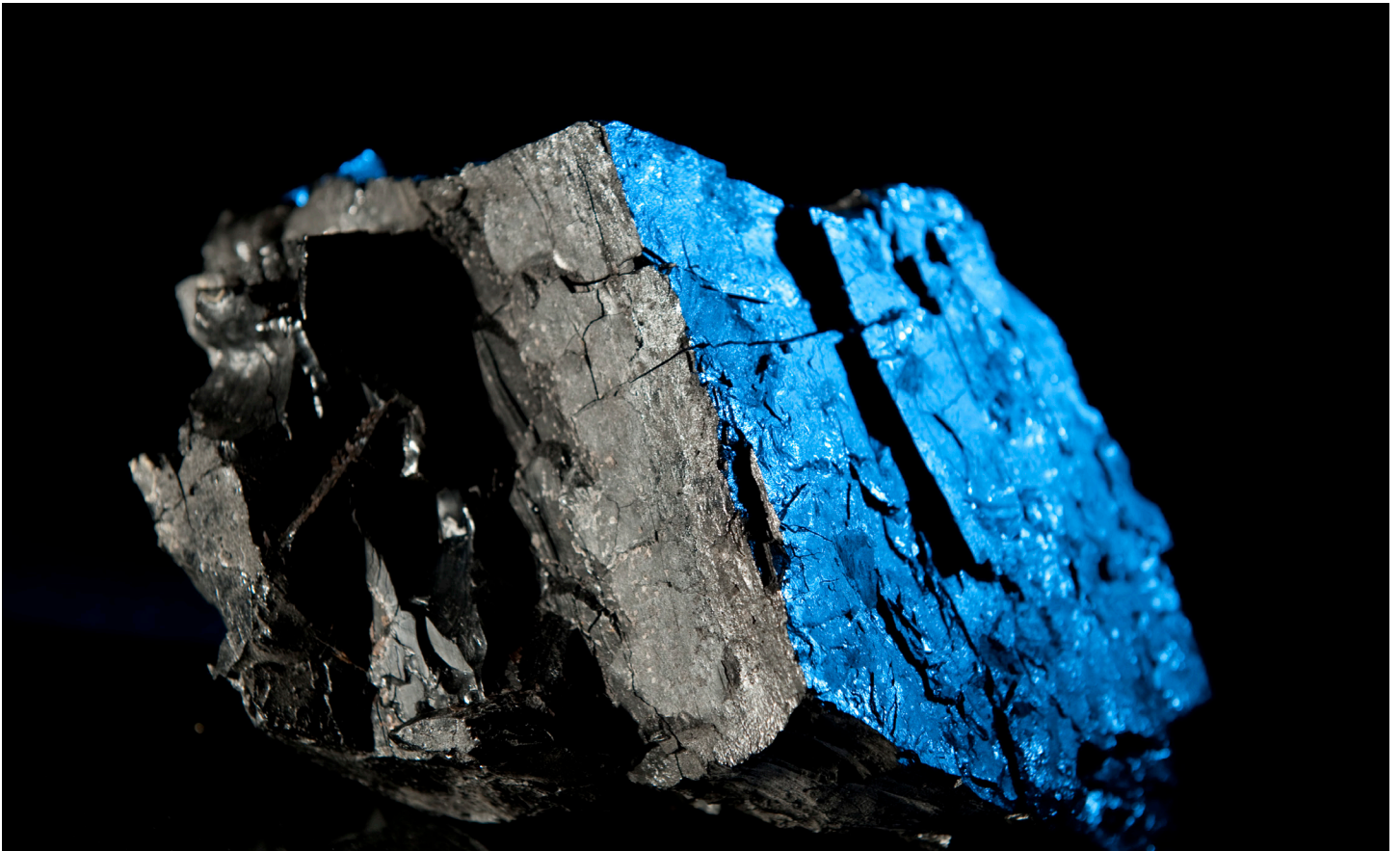
UNIVERSITY  
OF WYOMING

School of  
Energy Resources

CARBON ORE, RARE EARTH AND CRITICAL MINERALS

*Annual Forum*

GREATER GREEN RIVER AND WIND RIVER BASINS



GGRB-WRB

October 20, 2022

# Agenda

CORE-CM GGRB-WRB Annual Forum  
Western Wyoming Community College | Rock Springs, WY  
October 19-20, 2022

**Wednesday, October 19, 2022**

*Optional Community Infrastructure Tours*

**5:00 – 6:00 PM**                      **Western Wyoming Community College**

**6:00 – 7:00 PM**                      **Welcome Dinner**  
Western Wyoming Community College – Room 1003

**Thursday, October 20, 2022**

**8:00 – 8:30 AM**                      **Breakfast Available**

*Project Overview and Task Progress Updates*

**8:30 – 9:00 AM**                      **Welcome Remarks – Room 3650**

Davin Bagdonas, Research Scientist  
Principal Investigator

Holly Krutka  
Executive Director, School of Energy Resources

**9:00 – 9:15 AM**                      **Networking Break**

**9:15– 11:45 AM**                      **Project Task Lead Presentations**

Task 2 – Resource Assessment – Davin Bagdonas  
Task 3 – Waste Streams – Charles Nye  
Task 4 – Business, Industry, & Infrastructure – Dr. Christelle Khalaf (pre-recorded)  
Task 5 – Technology – Dr. Patrick Taylor, Colorado School of Mines  
Task 6 – Tech Innovation Center(s) – Richard Horner & David Steven Jacoby, Boston Strategies  
Task 7 – Outreach and Education – Christine Reed

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<b>11:45 AM - 12:00 PM</b>	<b>Questions and Discussion on Project Updates</b>
<b>12:00 - 1:00 PM</b>	<b>Lunch</b>
<b>1:00 - 2:00 PM</b>	<b>Keynote Speakers</b>
1:00 - 1:10 PM	Welcome from WWCC President, Kimberly Dale
1:10 - 1:35 PM	Nathan Perry, Associate Professor of Economics Colorado Mesa University
1:35 - 2:00 PM	Randy Goff, Associate Professor of Chemistry Western Wyoming Community College
<b>2:00 - 2:20 PM</b>	<b>Networking Break</b>
<i>Breakout Discussion Sessions</i>	
<b>2:20 - 4:30 PM</b>	<b>Breakout Discussion Sessions</b>
2:20 - 3:20 PM	<p><b>Discussion Session 1</b></p> <p><b>1.A. Room 3650 A</b> Resources, Mining &amp; Industry; Technology Innovation Chair: Davin Bagdonas Co-Chairs: Patrick Taylor (Colorado School of Mines) Don Crank (Kemmerer Mine)</p> <p><b>1.B. Room 3650 B</b> Coal Communities in Transition; Environmental &amp; Social Justice topics Chair: Selena Gerace Co-Chairs: Dr. Liz Johnson, Colorado Northwest Community College</p>
3:30 - 4:30 PM	<p><b>Discussion Session 2:</b> <b>Room 3650</b> Infrastructure &amp; Regional Supply Chain Economics; Workforce Development Chair: Amy Murphy, Western Wyoming Community College Co-Chairs: Kiley Ingersoll, Wyoming Business Council Kayla McDonald, Sweetwater Economic Development Coalition</p>
<b>4:30 - 4:45 PM</b>	<b>Closing Remarks</b>

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## Keynote Speakers



**Nathan Perry**

*Associate Professor of Economics  
Colorado Mesa University*

Nathan Perry, Ph.D., is an Associate Professor of Economics at Colorado Mesa University. His research interests include regional economics, macroeconomics, and money and banking. He has conducted several regional economic studies including economic impact studies, public land studies, and has published work on Deficits and Debt, inflation, and the Great Depression. Perry writes quarterly economic newsletters for Mesa, Montrose, and Delta Counties, and semi-annual newsletters for Garfield, Rio Blanco, Moffat, and Routt Counties. Perry regularly presents on the economic conditions of the Western Slope, Colorado, and the national economy. He teaches Money and Banking, Econometrics, and Macroeconomics.



**Randal Goff**

*Associate Professor of Chemistry  
Western Wyoming Community College*

Randal Goff is an Associate Professor of Chemistry at Western Wyoming Community College. He provides instruction in organic and general chemistry, and oversees student research in computational chemistry. Currently, he is serving as Chair of the WWCC Faculty and Professional Senate. Dr. Goff holds a Bachelor's degree in Chemistry from California State University at Long Beach, and a Ph.D. in Chemistry from Brigham Young University. He has taught chemistry at multiple higher education institutions including the University of Wisconsin-Madison and the University of West Florida. He will provide an overview of the significance of the Rare Earth Elements that are part of the CORE-CM group of materials.

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# Discussion Panel Speakers

## Discussion Panel 1: Mining & Industry; Technology Innovation



### **Davin Bagdonas**

*Research Scientist*

*University of Wyoming School of Energy Resources*

Davin Bagdonas is a research scientist specializing in Coal and Rare Earth Elements at the Center for Economic Geology Research. Bagdonas currently serves as the principal investigator on the two-year CORE-CM initiative in the Greater Green River Basin (GGRB) and Wind River Basin (WRB) as well as three existing rare earth element related projects located in the Powder River Basin (PRB). Partnering with entities such as the Department of Energy and the National Energy Technology Laboratory, these projects concentrate on the extraction technology development of coal and coal byproducts produced at coal fired power stations. Work has included the characterization of multiple coal cores from the PRB and GGRB, as well as the characterization of coal fly-ash produced as a byproduct of coal combustion in power stations for rare earth elements.



### **Patrick Taylor**

*Emeritus Professor of Chemical Metallurgy*

*Colorado School of Mines*

Patrick Taylor is a registered professional engineer with over 38 years of experience in mineral processing and extractive metallurgy engineering, research, teaching and consulting. He is experienced and trained in pyrometallurgy, he also has extensive experience in hydrometallurgy, electrometallurgy, environmental metallurgy and mineral processing. He has been responsible for lab work, pilot plant work, research, and process development for mineral processing and extractive metallurgy processes related to a wide variety of metals. He directed the Kroll Institute for Extractive Metallurgy in the George S. Ansell Department of Metallurgical and Materials Engineering at the Colorado School of Mines for over 20 years.



### **Don Crank**

*Operations Manager*

*Kemmerer Operations, LLC*

Don Crank is the operations manager for Kemmerer Operations, LLC, where he oversees the Kemmerer coal mine. Prior to that, he has served as a resident engineer for Westmoreland Kemmerer for over a decade. He earned his B.S. in Civil Engineering from the University of Wyoming in 1998. He is a 2022 graduate of Leadership Wyoming.

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## Discussion Panel 2: Communities in Transition; Environmental and Social Justice Topics



**Selena Gerace**

*Research Scientist*

*University of Wyoming School of Energy Resources*

Selena Gerace is a research scientist for the SER in both the Center for Economic Geology Research and the Center for Energy Regulation and Policy Analysis where she provides important economic and policy research. With expertise in outreach and communication, Gerace leads the social and environmental justice efforts for SER as well as conducting community engagement and educational activities as they relate to energy development and environmental stewardship. She completed her MS at the University of Wyoming in 2016, where she double majored in Agricultural and Applied Economics and Environment and Natural Resources.



**Christine Reed**

*Director of Outreach*

*University of Wyoming School of Energy Resources*

Christine Reed serves as the Director of Outreach for SER. She joined the School of Energy Resources in 2020. Christine came to the School of Energy Resources after a decade of service at the UW College of Law as the Director of Communications where she managed all of the College's outreach and communication, event planning, graphic design, website and publications. Reed manages all of the outreach and communication efforts for SER as well as overseeing all major events and campus visits. She holds degrees from the University of Wyoming in International Studies and Spanish, and an LL.M. Masters Degree in Law from the University of Liverpool.



**Elizabeth Johnson**

*Curator of Paleontology*

*Colorado Northwest Community College*

Liz Johnson is Curator of Paleontology at Colorado Northwestern Field Museum housed within Colorado Northwestern Community College (CNCC) with campuses in Rangely & Craig, Colorado. She earned her Bachelors of Earth Science, Paleontology Emphasis from Montana State University and Masters in Molecular Paleontology from North Carolina State University in Raleigh. Liz's expertise ranges from fieldwork in the excavation and preparation of fossils to the biochemistry lab understanding how the process of fossilization occurs. Paleontological education is one of Liz's passions. Liz also teaches a variety of college courses including Anatomy and Physiology, Geology, Microbiology and Chemistry. She was the 2019 recipient of the Outstanding Educator Award for work with CNCC Craig's science program.

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## Discussion Panel 3: Infrastructure & Regional Supply Chain Economics; Workforce Development



### Amy Murphy

*Dean of Outreach and Workforce Development  
Western Wyoming Community College*

Before coming to Western, Amy Murphy was the Dean of Applied Arts, Workforce Education and Training, at Joliet Junior College (JJC) in Joliet, Illinois. Murphy was employed at JJC for over twenty-nine years overseeing the entire non-credit programs including workforce development, customized contract training, professional development workshops, lifelong learning seminars, adult education and literacy, and “Kids College”. Murphy has a Master’s in Science in Workforce Education and Development from Southern Illinois University, a Bachelor of Science in Management with a specialization from Eastern Illinois University, and an Associates in Arts from Joliet Junior College. She has also received certification from Learning Resource Network (LERN) as a certified program planner and certified eMarketing professional.



### Kiley Ingersoll

*Southwest Regional Director  
Wyoming Business Council*

Kiley Ingersoll is the Southwest Regional Director for the Wyoming Business Council covering Lincoln, Sweetwater, and Uinta counties. In that role, Kiley works to promote and create a better tomorrow for all Wyomingites by helping create jobs and economic growth as well as facilitating connections between resources. Kiley attended Montana State and earned her B.S. in Business Marketing and her B.A. in Media and Theater Arts-Photography. Kiley has also earned her M.A. in Communication from the University of Wyoming. Past work includes grant administration, program coordination, teaching, education, and marketing. She is a member of the Class of 2022 for Leadership Wyoming.



### Kayla McDonald

*Economic Development Specialist  
Sweetwater Economic Development Coalition*

Kayla McDonald is a Wyoming native and is the Economic Development Specialist for the Sweetwater Economic Development Coalition (SEDC) in Sweetwater County. Kayla has been in her position for 9 years, she was instrumental in the development and creation of the countywide economic development organization. Which was created in 2016 as a partnership with the City of Rock Springs, City of Green River, and the Sweetwater County Commissioners. Kayla holds a Bachelor’s Degree in Public Relations from Franklin University and completed her Economic Development Certification from Oklahoma University in 2017. Kayla currently serves on the Wyoming Economic Development Association (WEDA) Board of Directors.

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