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UNIVERSITY OF ALASKA

ALASKA'S MINERALS

A Strategic National Imperative | Summary and Next Steps



This report is a synthesis of outcomes from *Alaska's Minerals: A Strategic National Imperative*. At this two-day summit, policy makers, agency representatives and industry leaders discussed Alaska's potential to meet national needs and the necessary actions to fulfill that potential.

More information: akminerals.alaska.edu



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EXECUTIVE SUMMARY

Domestic development of a critical mineral¹ supply chain is vital to increasing workforce capacity, ensuring national security and transitioning to a clean energy economy. The United States is increasingly dependent on foreign sources of these minerals, resulting in potential for strategic vulnerabilities. As critical minerals are essential inputs in clean energy technologies, mitigating risk by expanding mining, production, processing and manufacturing are consistent with the nation's economic, social and governance goals.

Globally, the critical minerals supply chain is controlled by China. By prioritizing reduced import-reliance on foreign sources, the United States' ability to support development capacity, maintain competitive edge in research and technology, and ensure national security will strengthen.

Since the passing of the climate law, called the Inflation Reduction Act², interest in Alaska's mining potential has gained national attention. The state's critical minerals include graphite and cobalt, which are essential manufacturing materials contained in electric vehicles; tin and indium, used in high-tech devices, such as touchscreens and solar panels; and zinc, used to prevent corrosion in renewable energy technologies, such as wind turbines. Alaska's vastness and diverse geology presents an opportunity for the United States to secure a domestic and resilient critical minerals supply chain.

Alaska's Minerals: A Strategic National Imperative³, a summit hosted by the University of Alaska examined Alaska's potential to meet the nation's critical mineral needs and the necessary actions to fulfill that potential. Research, themes and recommendations captured at the summit are synthesized in this report. Special thanks to the Wilson Center for livestreaming the event worldwide, and the Arctic Research Commission for moderating.

1. As defined by the U.S. Geological Survey, Department of the Interior. [2022 Final List of Critical Minerals](#).

2. H.R. 5376, August 16, 2022.

3. A [two-day summit](#), where policy makers, agency representatives and industry leaders addressed Alaska's strengths, resources, capabilities and investment opportunities to meet the national imperative of critical mineral development to reach clean energy goals and economic security. August 22-23, 2022.

BACKGROUND

21st century needs are dependent on critical minerals. From electric vehicles and household appliances to solar panels and wind turbines, increased capacity for domestic critical mineral development is necessary to prevent disruption to product manufacturers, national security agencies and infrastructure systems.

As domestic production is in its infancy, the United States relies significantly on foreign imports to supply national demand. Mitigating risks associated with foreign dependence is preventative and aligned with national priorities. As seen in Figure 1, from extraction to manufacturing, China controls the global supply chain of clean energy materials.

Robert Daly, Director of the Wilson Center’s Kissinger Institute on China and the U.S., warns that the imperative of domestic critical mineral development is coming quicker than the U.S. can explore and produce minerals and refine/manufacture them, and a national plan is needed now⁴. “China is active now – in central Asia, Southeast Asia, Latin America and Africa – in a way that is bringing real benefits to people of those areas. We (the U.S.) are giving ourselves permission to ignore the global south where China is active. This is not just a story about China, it’s a story about American inactivity.”

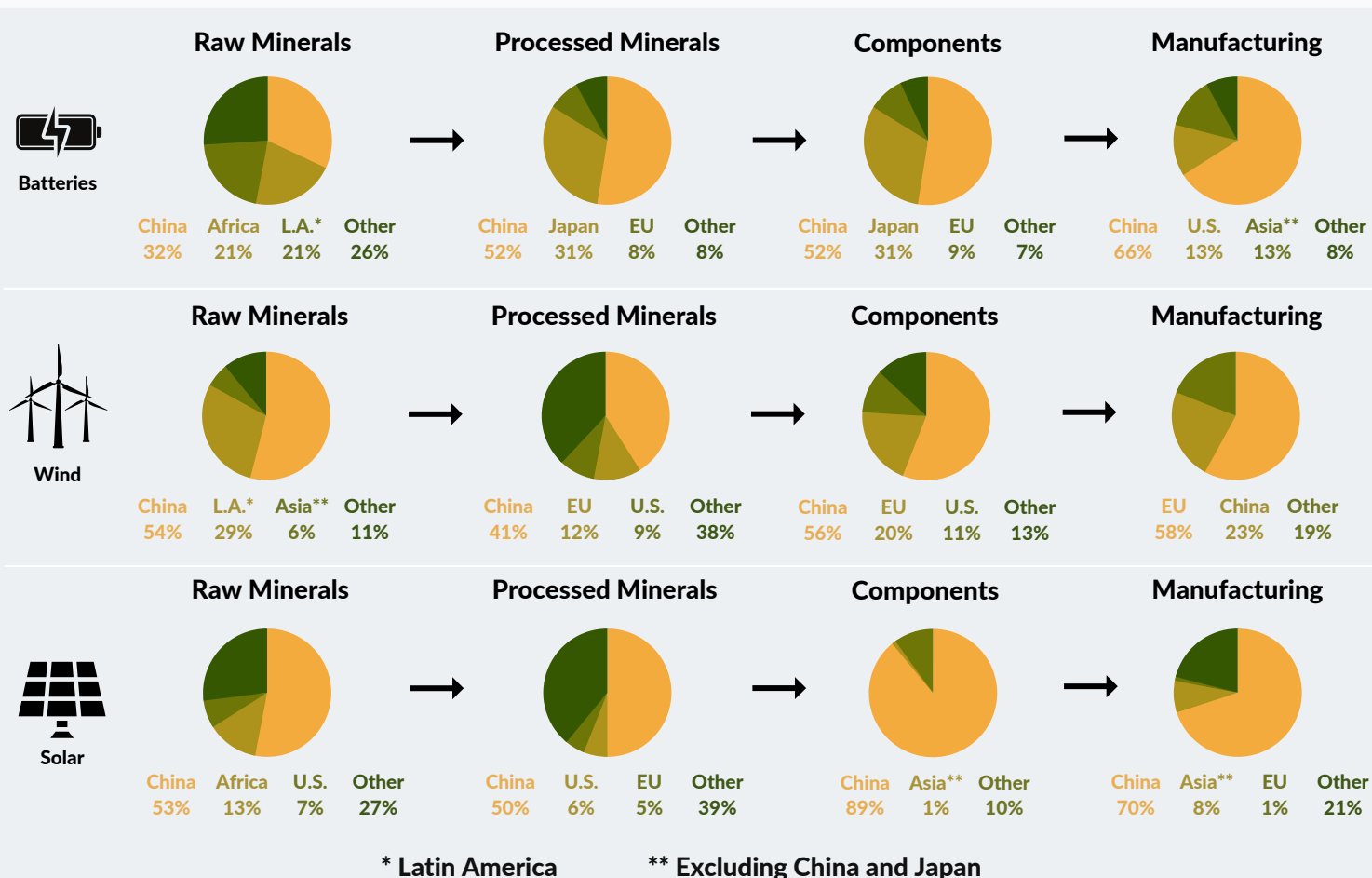


Figure 1 Clean Energy Mineral Supply Chains and Top Global Suppliers ⁵

Global pandemics, climate events, geopolitical and economic competition, and other unanticipated circumstances can diminish critical mineral manufacturing capacity and availability of vital products and services. To mitigate these potential risks, it is vital for the U.S. to create resilient supply chains to grow domestic capacity for critical mineral development and ensure availability of essential goods and services.

4. Daly participated in a discussion regarding the geopolitical and national landscape of critical minerals at the Alaska’s Minerals summit.
 5. Based on data from 1) the Office of Energy Efficiency & Renewable Energy, Advanced Manufacturing Office, 2020 (Washington D.C.: U.S. Department of Energy, 2022), 2) European Commission, Critical materials for strategic technologies and sectors in the EU - a foresight study, 2020 (Brussels: European Commission, 2020).



ALASKA'S POTENTIAL

Due to its vast mineral resources, Alaska is positioned to be key in decreasing national reliance on foreign imports of raw material. The Alaska Division of Geological and Geophysical Surveys (DGGs), reports nearly all of the 50 critical mineral commodities listed identified by the U.S. Department of Defense (DOD) and U.S. Geological Survey (USGS) can be found in Alaska. Multiple mineral beds around the state have high potential to contain mineral resources, and both DGGs and the USGS have committed to multi-year projects to better map and catalog Alaska's resource potential⁶.

Of particular interest, potential extraction of Alaska's cobalt and graphite deposits can lessen the nation's dependence on foreign supply of electric vehicle materials⁷. Steve Douglas, Vice President of Energy & Environment of the Alliance for Automotive Innovation, states that all signs point to industry-wide electrification⁸. "16 states have adopted Zero-Emission Vehicle (ZEV) standards — 35% of the vehicle market in the U.S."

This shift responds to at least three governmental actions:

- In August 2021, President Joe Biden issued Executive Order 14037⁹ to stimulate the domestic market by setting a goal for 50% of all new passenger vehicles sold to be ZEV by 2030, including battery electric, hybrid and fuel cell vehicles, which translates to approximately 80 million electric vehicles.
- President Biden has charged the Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA) to draft new regulations for emission standards by March 2023 and finalize them by March 2024.
- Regulators in California, which is home to the nation's largest market for automobiles, recently approved a rule requiring all new cars and light trucks sold in the state to be electric or plug-in hybrid by 2035.

In 2021, 630,000 plug-in battery and hybrid electric cars were sold in the U.S, nearly double the sales of 2020. To meet the ZEV 2030 goal, 10 million electric vehicles need to be sold every year between 2022 and 2030 to make the green economy transition. Additionally, President Biden charged the Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA) to publish draft new regulations for emission standards by March 2023 and finalized by March 2024.

On August 22-23, mining industry representatives, university researchers and representatives, elected officials, federal and state delegates, Alaska Native corporation leaders, and environmental organization leaders convened in Fairbanks, Alaska to discuss the state's potential role in the critical mineral imperative¹⁰. Reflected in Figure 2, collective input from dialogue resulted in priorities and appropriate roles.

6. DGGs and USGS have partnered to use databases in geographical information systems to identify areas with mineral resource potential.

7. [Alaskan cobalt could supply EV demands](#), North of 60 Mining News.

8. Douglas presented on the [transition to electric vehicles](#) at the Alaska Minerals summit.

9. [Strengthening American Leadership in Clean Cars and Trucks](#), Federal Register.

10. A two-day summit, addressing Alaska's strengths, resources, capabilities and investment opportunities to meet the national imperative of critical mineral development to reach clean energy goals and economic security.

PRIORITY AREA	FEDERAL	STATE	UNIVERSITY	INDUSTRY
Outreach/Communication Publish/publicize research outcomes for broad public consumption in addition to academic or industry audiences			●	●
Promote Constructive/Inclusive Dialogue Develop broad sustained partnerships through identification of shared goals, community engagement, co-production of knowledge and facilitated communication	●	●	●	●
Implement Statewide Strategic Plan Envision and implement a broadly-supported strategic plan for inclusive development of Alaska's critical mineral resources		●		
Promote Efficient/Effective Permitting Industry and agencies work to reduce time required for permitting decisions, while maintaining oversight function	●	●		
Social/Environmental/Permitting Current and projected linkages between mine sites and hydrologic and social/ecological systems			●	
Separation/Processing/Metallurgy Enhanced recovering from active streams, waste streams and tailings.	●	●	●	●
Promote Geochemical Analysis Develop additional testing facilities and promote geochemical analysis of geologic samples	●	●		
Resource Assessment/Mapping Continued efforts and technological advances characterizing Alaska's resource potential	●	●		
Infrastructure/Access/Climate Transportation, power and geotechnical issues associated with remote sites and changing landscape	●	●	●	●
Develop Support Infrastructure Construct transportation corridors and provide energy alternatives to remote regions	●	●		
Economics/Market Analysis Economic drivers upon, and impacts resulting from, critical minerals value chain		●	●	●
Workforce Development Incorporate mentoring programs, alternative employment models, paid trade programs and/or accelerate education tracks for regulators		●	●	●

Figure 2 Roles and Prioritized Recommendations

In the wake of the summit, recognition of Alaska’s mineral potential has continued to grow. On October 7, 2022, U.S. Secretary of State Antony Blinken presented the National Strategy for the Arctic Region¹¹. As Alaska makes the U.S. an Arctic nation. The national strategy focuses heavily on Alaska, the only Arctic state in the U.S., including through homeland security, mitigation of climate change, expanding economic opportunities, protecting Indigenous communities, and upholding laws and standards across the circumpolar north. The strategy also highlights the objective of developing emerging economic sectors in Alaska, promoting sustainable growth through renewable energy, critical mineral production and workforce development. Cross-sector partnerships are to consist of the State of Alaska, Alaska Native communities and stakeholders, industry representatives and environmental protection agencies.

Figure 2 illustrates the need for cross-sector collaboration for Alaska to meet the critical minerals imperative. Through increased development among these partnerships, stakeholders can responsibly focus on land-use decisions and areas of most immediate impact on the United States’ economic clean energy initiatives and national security.

11. Formal strategy to address climate change and investments in sustainable development in the Arctic, while conserving the environment.



RECOMMENDED NEXT STEPS

Collaboration and support among state agencies, industry leaders, the University of Alaska, and federal entities is necessary to ensure the responsible development of Alaska's mineral resources to meet national needs. The Alaska Minerals summit generated many ideas and opportunities for advocacy, engagement and inclusive dialogue.

The outline below recommends actions these stakeholder groups can take to advance Alaska's critical mineral development, including the formation of a statewide taskforce to implement a formal strategic plan. The recommended actions cross state, industry, university and federal boundaries.

STATE/DEPARTMENT OF NATURAL RESOURCES

- Seek legislation to formalize a statewide critical minerals strategic plan in collaboration with the Alaska Minerals Commission, propose the development of a subcommittee task force
- Mobilize a diverse task force to maintain and promote critical mineral strategic plan (see task force outline on next page)
- Influence and support federal, state, and multi-state partnerships to proactively address timely permitting processes and certainty
- Identify champions to increase state awareness of the clean energy imperative and the dependence on critical mineral development
- Host a biennial critical mineral forum, engaging a broader audience and to ensure initiatives are advancing

UNIVERSITY

- Grow workforce development opportunities in conjunction with industry, including mentorship programs and professional development for current members of the workforce
- Continue focus on to support responsible critical mineral exploration and development
- Produce, publish and publicize research outcomes for broad public consumption beyond stakeholders
- Continue inclusive dialogue with broad stakeholders, including environmental and climate groups, to build awareness and shared goals around the imperative for resource development in Alaska to meet clean energy goals
- In collaboration with the state, industry, delegation, and Wilson Center to convene one or more gatherings of federal, NGO, industry and state officials to further conversation on advancing Alaska and domestic critical mineral supply

INDUSTRY

- Continue to develop and support workforce development models to enhance Alaska hire opportunities
- Enhance recovery innovations for active streams, waste streams and historic tailings
- Produce, publish and publicize activities, generating trust and confidence in responsible resource development
- Identify champions to increase industry awareness of the clean energy imperative and the dependence on critical mineral development
- Share and collaborate with agencies to address infrastructure needs associated with remote mining sites
- Promote the importance of implementing a statewide critical minerals strategic plan

FEDERAL

- Identify champions to increase national awareness of the clean energy imperative and the dependence on critical mineral development
- Seek funding for feasibility studies (e.g. investment in mapping)
- Develop a concise national road map for advancing critical mineral supply for use in congress, utilizing the Arctic Research report, White House national strategy report, etc., to include permitting process certainty, land use policy and incentives
- Provide research and development funding for advanced techniques for environmentally responsible development from exploration through product development

Components of a critical minerals strategic plan would be driven by cross-sector partnerships by formalizing a statewide task force. The task force would be structured around the prioritized list (Figure 2), and organized by subgroups:

- Subgroup 1: Partnerships and Communication
- Subgroup 2: Workforce Development
- Subgroup 3: Permitting by State
- Subgroup 4: Industry Support
- Subgroup 5: Research
- Subgroup 6: Critical Minerals Action Plan

Each subgroup should consist of stakeholders from varied interests and perspectives, bound together by their commitment to identifying collaborative solutions.

The task force should leverage existing efforts in the development of the strategic plan. For instance, the University of Alaska Fairbanks' (UAF) CORE-CM project¹² is currently developing a critical minerals-related action plan with many of the same elements as described in Figure 2. While the task force may include additional stakeholders in addition to the CORE-CM effort, it is anticipated that the CORE-CM initiative would provide significant contributions to the statewide strategic plan. Once a plan is adopted by the Alaska State legislature, a model of cross-sector partnerships could be led by the Alaska Department of Natural Resources and include the Department of Energy, Department of Commerce, CORE-CM, industry, and UAF.

In addition to identifying immediate actions and potential roles, and continuing critical mineral discussions, it is also recommended that an annual/biennial summit be organized to engage a broader audience and generate larger interests in Alaska's critical minerals future.

The United States' reliance on foreign critical mineral imports is an undeniable vulnerability for national security, the transition to a clean energy economy and the United States' ability to lead many industries of the future. Alaska can play a leading role in the mitigation of these vulnerabilities by continuing dialogue among stakeholders to develop a statewide strategic plan for advocacy and the responsible expansion of mineral development to achieve the nation's economic priorities and its environmental, social and governance goals.

Through a critical minerals strategic plan, a statewide task force can collaborate across sectors and develop capacity. As the state's vast and diverse geography can supply nearly all 50 critical mineral materials, Alaska's can lead the nation in securing a resilient supply chain to ensure national security and a thriving economy.

12. A project to reduce the nation's reliance on foreign critical mineral imports, establishing Alaska's resources as competitive sources of supply.



Appendix A: Summit Agenda and Speakers

Welcoming Remarks

Daniel White, Chancellor, University of Alaska Fairbanks (UAF)

Pat Pitney, President, University of Alaska

The Imperative

Moderator: Mike Sfraga, Chair, U.S. Arctic Commission/Wilson Center Polar Institute

Senator Lisa Murkowski, U.S. Senate

Senator Dan Sullivan, U.S. Senate

Geopolitical and National Analysis

Moderator: Mike Sfraga, Chair, U.S. Arctic Commission/Wilson Center Polar Institute

David Applegate, Director, U.S. Geological Survey

Robert Daly, Director, Kissinger Institute on China and the United States, Wilson Center

Subject Matter Presentations

Thomas Tarka, Senior Engineer, National Energy Technology Laboratory

Halimah Najieb-Locke, Deputy Assistant Secretary for Industrial Base Resilience, Department of Defense

Daniel McGroarty, Principal, American Resources Policy Network

Steve Douglas, Vice President of Energy and Power, Alliance for Automotive Innovation

Accessing Alaska's Resources: Bridging Federal and State

Frank Murkowski, former U.S. senator and former governor of Alaska

Alaska's Government

Moderator: Akis Gialopsos, Acting Commissioner, Department of Natural Resources

Miles Baker, Legislative Director, Office of Governor Mike Dunleavy

Jason Brune, Commissioner, Department of Environmental Conservation

Senator Peter Micciche, Alaska State Legislature

Lucinda Mahoney, Commissioner, Department of Revenue

Permitting in Alaska

Moderator: Senator Peter Micciche, Alaska State Legislature

Senator Click Bishop, Alaska State Legislature

Karen Matthias, Executive Director, Council of Alaska Producers

Patty McGrath, Senior Mining Advisor, U.S. Environmental Protection Agency

Kyle Moselle, Executive Director, Office of Project Management and Permitting, Department of Natural Resources

Alaska's Resources

Moderator: Nettie La Belle-Hamer, Vice Chancellor for Research, UAF

David LePain, Director & State Geologist, Alaska Division of Geological & Geophysical Surveys

Jamey Jones, Assoc. Director of Geology, Alaska Science Center, U.S. Geological Survey

Bob Loeffler, Professor, Institute of Social and Economic Research, University of Alaska Anchorage

Alaska's Potential Role in Domestic Supply

Moderator: Lance Miller, Vice President of Natural Resources, NANA

Liz Cornejo, Vice President, Dowa Metals & Mining Alaska

Curt Freeman, President, Avalon Development Corporation

Rick van Nieuwenhuysse, President & CEO, Contango ORE

Framing Day Two: Research and Development

Nettie La Belle-Hamer, Vice Chancellor for Research, UAF

Alaska's Mineral Opportunities

Governor Mike Dunleavy, State of Alaska

Nettie La Belle-Hamer, Vice Chancellor for Research, UAF

Current Research in Alaska

Moderator: Bill Schnabel, Dean of College of Engineering and Mines, UAF

Srijan Aggarwal, Associate Professor of Environmental Engineering, UAF

Bridget Eckhardt, Red Dog Mine

Tathagata Ghosh, Director, University of Alaska Fairbanks

Brent Sheets, Director, Department of Petroleum Development, UAF

Melanie Werdon, Chief of Mineral Resources, Division of Geological and Geophysical Surveys

Michael West, Director, Alaska Earthquake Center, UAF

Development Potential for Alaska

Moderator: Gwen Holdmann, Associate Vice Chancellor of Research for Innovation and Industry Partnerships, UAF

Kathleen Hook, Environmental Program Manager, Doyon Utilities

Joy Huntington, Community Relations Manager, Graphite One, Inc

Jeremy Kasper, Interim Director, Alaska Center for Energy and Power, UAF

Kamran Khozan, Chairman & Founder, CVMR

Dan Robinson, Research Chief, Department of Labor and Workforce Development

Deantha Skibinski, Executive Director, Alaska Miners Association

Outcomes and Synthesis

Mike Sfraga, Chair, U.S. Arctic Commission, Wilson Center Polar Institute

Appendix B: Presentations and Recordings

Presentations are available for download on the [Alaska's Minerals summit website](#).

[Alaska's Critical Mineral Resources](#), Jamey Jones, U.S. Geological Survey, Alaska Science Center

[Alaska's Critical Mineral Potential](#), David LePain, Alaska Division of Geological & Geophysical Surveys

[Alaska's Minerals: A Strategic National Imperative, A SWOT Approach](#), Curt Freeman, Avalon Development Corporation

[Alaska's Potential Role in Domestic Mineral Supply](#), Lance Miller, NANA

[Autos in Transition: Addressing Demand](#), Steve Douglas, Alliance for Automotive Innovation

[Critical Minerals - Important Myths](#), Bob Loeffler, University of Alaska, Institute of Social and Economic Research

[Exploration Development in Alaska?](#), Liz Cornejo, Dowa Metals & Mining Alaska

[University of Alaska: Active Participant in Growing Alaska's Economy](#), Nettie La Belle-Hamer, University of Alaska Fairbanks

Video recordings of all sessions can be found [here](#).

Appendix C: Acknowledgements

Host

University of Alaska Fairbanks

Technical Lead

Dr. Nettie La Belle-Hamer, University of Alaska, Vice Chancellor for Research

Breakout Session Facilitators

Dr. Bill Schnabel - Lead

Dr. Srijan Aggarwal

Dr. Brandon Briggs

Subhabrata Dev

Long Fan

Dr. Tathagata Ghosh

Gwen Holdmann

Adam Low

Elisabeth Nadin

Sean Regan

Event Recorders

Tully Ward-Hamer - Lead

Ariane Glover

Joshua Knicely

Adam Low

Ricardo Medina

Addie Norgaard

Jennifer Reynolds

Justin Sternberg

Project Manager

Andrew Aquino

Project Team

Wendy Brophy

Carla Browning

Kerynn Fisher

Jenell Merrifield

Appendix D: Summit Attendees

Alphabetical by Last Name

[Grant Ackerman](#), Policy Analyst, Office of Governor Dunleavy

[Srijan Aggarwal](#), Associate Professor, University of Alaska Fairbanks

[Kevin Allen](#), Reporter, Juneau Radio Center KINY

[David Applegate](#), Director, U.S. Geological Survey

[Sampurna Arya](#), Assistant Professor, University of Alaska Fairbanks

[Anna Atchison](#), Director of External Affairs, Kinross Fort Knox

[Miles Baker](#), Infrastructure Investment Coordinator, Alaska Government Panel

[Matthew Balazs](#), Arctic Coastline Geoscience Lab, University of Alaska Fairbanks

[Stephen Ball](#), General Manager, Coeur Alaska

[Jack Barnwell](#), Reporter, Fairbanks Daily News-Miner

[Gregory Beischer](#), President & CEO, Millrock Exploration Corporation

Appendix D: Summit Attendees

William Bieber, Executive Director, Mining and Petroleum Training Service, University of Alaska Fairbanks
Click Bishop, Senator, Alaska State Legislature
Wescott Bott, Alaska Resources Business Development Leader, HDR
Robert Boyle, President, Hanson Industries, Inc.
Brandon Briggs, Associate Professor, Department of Biological Sciences, University of Alaska Anchorage
Bonnie Broman, Vice President of Exploration, Valhalla Metals, Inc.
Ronald Brooks, Placer Mining Consultant, Alaska Miners Association
Tom Bundtzen, President, Pacific Rim Geological Consulting, Inc
Roger Burggraf, Former President, Alaska Miners Association
Taylor Burgh, Assistant Program Director, Alaska Resource Education
Tod Burnett, President, University of Alaska Foundation
Joe Byrnes, Chief of Staff, Office of Representative LeBon
Heather Cavanaugh, Senior Director of External Affairs, Alaska Communications
Catherine Chambers, External Affairs Coordinator, Alaska Support Industry Alliance
David Charron, Geologist 4, Department of Natural Resources
Jen Christopherson, Program Manager, National Parks Conservation Association
Karen Clautice, Geologist, Alaska Miners Association
John Conger, President, Conger Strategies and Solutions
Liz Cornejo, Vice President, Dowa Metals & Mining Alaska
Teri Cothren, Associate Vice President of Workforce Development, University of Alaska
John Crowther, Deputy Commissioner, Department of Natural Resources
Ely Cyrus, Chairman, NANA Regional Corporation
Memry Dahl, Chief Human Resources Officer, University of Alaska
Robert Daly, Director, Kissinger Institute on China & the U.S., Wilson Center
Samuel Dashevsky, President, Northern Associates, Inc
John Davies, Regent, University of Alaska
Warren Day, Earth MRI Science Coordinator, U.S. Geological Survey
Subhabrata Dev, Research Assistant Professor, Institute of Northern Engineering, University of Alaska Fairbanks
Steve Douglas, Vice President of Energy & Environment, Alliance for Automotive Innovation
Bridget Eckhardt, Water Resources Engineer, Teck Red Dog Operations
Long Fan, Assistant Professor, College of Engineering and Mines, University of Alaska Fairbanks
Corri Feige, President, Terra Piniun, LLC
Richard Flanders, Owner, Ridgerunner Exploration
Craig Fleener, Deputy Advisor, Ted Stevens Center
Patrick Foster, GIS Property Manager, UA Land Management Office
Elizabeth Freeman, STEM Educator, Alaska Resource Education
Tathagata Ghosh, Director, University of Alaska Fairbanks
Akis Gialopsos, Acting Commissioner, Department of Natural Resources
Cathy Giessel, Independent
Brent Goodrum, Deputy Commissioner, Department of Natural Resources
Hannah Griego, Environmental Sciences and Planning Lead, HDR
Andrea Gusty, President & CEO, The Kuskokwim Corporation
John Haddix, Bureau of Land Management
Ken Hall, Account Manager, Lynden
Tim Hammond, Field Manager, Bureau of Land Management
Karl Hanneman, Chief Executive Officer, Tower Hill Mines
Matthew Hanson, Geologist, Doyon, Ltd
Elizabeth Hardie, Program Coordinator, Mining and Petroleum Training, University of Alaska Fairbanks
Shalon Harrington, Director of External Affairs, Ambler Metals
Emily Hart, Regulatory Permitting and Land Specialist, Teck American Incorporated
Nina Harun, Geologist, Department of Natural Resources
Chuck Heath, General Manager, Hawk Consultants
Mike Heatwole, Sr. Vice President of Public Affairs, Pebble Partnership
Matt Heavner, Senior Advisor, Department of Energy
Lorraine Henry, Communications Director, Department of Natural Resources
Linda Hersey, Reporter, Fairbanks Daily News-Miner
Larry Hinzman, Assistant Director for Polar Sciences, Office of Science and Technology Policy
Diane Hirschberg, Director & Professor of Education Policy, Institute of Social and Economic Research, University of Alaska Anchorage
Cassidy Hobbs, Assistant to the Director of Federal Relations, University of Alaska
Jason Hoke, Alaska General Manager, CVMR
Gwen Holdmann, Associate Vice Chancellor for Research, University of Alaska Fairbanks
Kathleen Hook, Director of Environmental Affairs, Doyon Utilities
John Hoppe, Geologist, Bureau of Land Management
Joy Huntington, President, Uqaqti
Chad Hutchison, Director of State Relations, University of Alaska
Doug Isaacson, CEO, Minto Development Corporation
Rachel James, Public Lands and Waters Lead, SalmonState
Patrick Johnson, Attorney Advisor, Environmental Protection Agency
Crystal Johnson, Board of Director, NANA Regional Corporation
Rosita Johnson, Business Development Manager, Advanced Supply Chain International LLC
Jamey Jones, Associate Science Center Director, U.S. Geological Survey
Sue Karl, Research Geologist, U.S. Geological Survey
Jeremy Kasper, Director, Alaska Center for Energy and Power, University of Alaska Fairbanks

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Emily Katz, Defense Fellow, Department of Defense
Anne Kelly, Deputy Director for Alaska, The Nature Conservancy
Leila Kimbrell, Executive Director, Resource Development Council of Alaska
Givey Kochanowski, Senior Advisor, U.S. Department of Energy
Douglas Kreiner, Research Economic Geologist, U.S. Geological Survey
Nettie La Belle-Hamer, Vice Chancellor of Research, University of Alaska Fairbanks
Michael Ladouceur, Geologist 3, Alaska Department of Natural Resources
Baron Lambert, Special Agent, Federal Bureau of Investigation
Shane Lasley, Publisher, North of 60 Mining News
John Latini, Director of Federal Relations, University of Alaska
Paul Layer, Vice President for Academics, Students & Research, University of Alaska
Bart LeBon, Representative, Alaska State Legislature
Cathy LeCompte, Division Director, Department of Labor & Workforce Development
Benjamin Leon-Guerrero, Land Manager, The Aleut Corporation
David LePain, Director and Alaska State Geologist, Department of Natural Resources
Lee Leschper, CEO, Fireweed Strategies
John Lincoln, President/CEO, NANA Regional Corporation
Rochelle Lindley, Community and Government Affairs Manager, Coeur Alaska Kensington Mine
Bob Loeffler, Research Professor of Public Policy, Institute of Social and Economic Research, University of Alaska Anchorage
Thomas Lograsso, Director of the Critical Materials Institute, Ames Laboratory
Sara Longan, Acting Chief, Army Corps of Engineers
Lucinda Mahoney, Commissioner, Department of Revenue
Jaenell Manchester, GIS Analyst, Doyon Limited
Jenny March, Natural Resource Specialist, Department of Natural Resources
Sally Marinucci, Business Manager, Fairweather, LLC
Michael Martinez, Co-Founder & CEO, Arctic Biotech Oath
Steven Masterman, Independent
Karen Matthias, Executive Director, Council of Alaska Producers
Kathy Mayo, Principal, Kathy Mayo + Associates
Scott McCall, Materials Physicist, Lawrence Livermore National Laboratory
Katie McClellan, Program Coordinator, Northern Alaska Environmental Center
Patty McGrath, Senior Mining Advisor, U.S. Environmental Protection Agency
Daniel McGroarty, Principal, American Resources Policy Network
Travis McLing, Distinguished Staff Scientist, Idaho National Laboratory
Paul Metz, Professor Emeritus, University of Alaska Fairbanks
Michele Metz, Lands Manager, Sealaska Corporation
Lance Miller, VP Natural Resources, NANA Regional Corporation
Clark Milne, Alaska Miners Association
Naomi Mitchell, STEM Educator, Alaska Resource Education
Harold Monroe, Student, Lewis and Clark College
Ramona Monroe, Attorney, Stoel Rives, LLP
Brihannala Morgan, Senior Arctic Campaigner, Pacific Environment
Kyle Moselle, Executive Director, Department of Natural Resources
Brian Murkowski, President, Brian Murkowski Energy Consulting, LLC
Frank Murkowski, Former U.S. Senator/Formal Governor, Independent
Elisabeth Nadin, Associate Professor of Geosciences, University of Alaska Fairbanks
Halimah Najieb-Locke, Deputy Assistant Secretary, U.S. Department of Defense
Morgan Neff, Chief Investment Officer, Alaska Industrial Development Export Authority
Erik O'Brien, Program Manager, Denali Commission
Charlene Ostbloom, Owner, Bloom Communications
Drue Pearce, Government Affairs Director, Holland & Hart, LLP
Eugene Peltola, Jr., COO, Boot Heel, LLC
Sara Perman, State Government Relations Manager, University of Alaska
Grace Petersen, Engineering Assistant II, Department of Natural Resources
Eric Peterson, President, ESP Research, Inc.
Jeff Rasic, Resource Program Manager, National Park Service
Matthew Reece, Regional Minerals and Geology Program Manager, USDA Forest Service
Sean Regan, Assistant Professor, Center for Earth and Environmental Sciences University of Alaska Fairbanks
Aleksander Rentz, Legislative Aide, Office of Senator Lisa Murkowski
Robert Retherford, President, Alaska Earth Sciences
Anne Rittgers, Staff to Representative LeBon, Alaska State Legislature
Michelle Rizk, Vice President of University Relations, University of Alaska
Dan Robinson, Research Chief, Department of Labor and Workforce Development
Jacob Rowland, Project Scientist/Permitter, Fairweather Science, LLC
Mike Schaffner, Sr. Vice President of Mining, Graphite One
Bill Schnabel, Dean of College of Engineering and Mines, University of Alaska Fairbanks
Priscilla Schulte, Ketchikan Campus Director, University of Alaska Southeast
Justin Seavey, Senior Engineer, Usibelli Coal Mine
Claire Sebald, Regulatory/Land Lead, Teck American Incorporated
Mike Sfraga, Chair, Wilson Center Polar Institute
Brent Sheets, Director of Petroleum Development Laboratory, University of Alaska Fairbanks
Dian Siegfried, Property Manager, University of Alaska
Deantha Skibinski, Executive Director, Alaska Miners Association

Appendix D: Summit Attendees

Richard Solie, Manager Investor & Community Relations, Tower Hill Mines
Sean Solie, Project Manager, Uqaqti
Justin Sternberg, Director of Alaska Blue Economy Center, University of Alaska Fairbanks
Adrienne Stolpe, Director, Office of Land Management, University of Alaska
Laurie Swartz, Sr. Property Manager, University of Alaska
Roy Tansy, Chief Operating Officers, Ahtna Netiye', LLC
Thomas Tarka, Senior Engineer, National Energy Technology Laboratory
Beki Toussaint, Program Director, Alaska Resource Education
Pete Traxler, Executive Dean, Career Education, University of Alaska Southeast
Rick Trupp, General Manager, SAExploration Inc
Bob Tsigonis, President, Lifewater Engineering Company
Jake Tyner, Legislative Counsel, Office of Senator Dan Sullivan
Rick van Nieuwenhuysse, President and CEO, Contango Ore, Inc.
Bill Walker, Candidate for Governor, Walker Drygas for Alaska
Bronwen Wang, Research Geologist, U.S. Geological Survey
Marwan Wartes, Chief of Energy Resources, Department of Natural Resources
Alan Weitzner, Executive Director & CEO, Alaska Industrial Development Export Authority
Melanie Welsh, Executive Director, Alaska Unlimited
Melanie Werdon, Chief of Mineral Resources, Department Geological & Geophysical Surveys
Michael West, Director of the Alaska Earthquake Center, University of Alaska Fairbanks
Daniel White, Chancellor, University of Alaska Fairbanks
Jesse Garnett White, Geologist 2, Department of Natural Resources
Dee Williams, U.S. Geological Survey
Colin Williams, U.S. Geological Survey
Theresa Woldstad, Legislative Researcher, Alaska State Legislature



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Many Traditions One Alaska