Mining Industry Update

March 1, 2023

Deantha Skibinski, Executive Director, Alaska Miners Association
Karen Matthias, Executive Director, Council of Alaska Producers
Mike Satre, Director - Governmental Affairs, Hecla Ltd.

ALASKA MINERS ASSOCIATION

cap Council of Alaska Producers

Overview

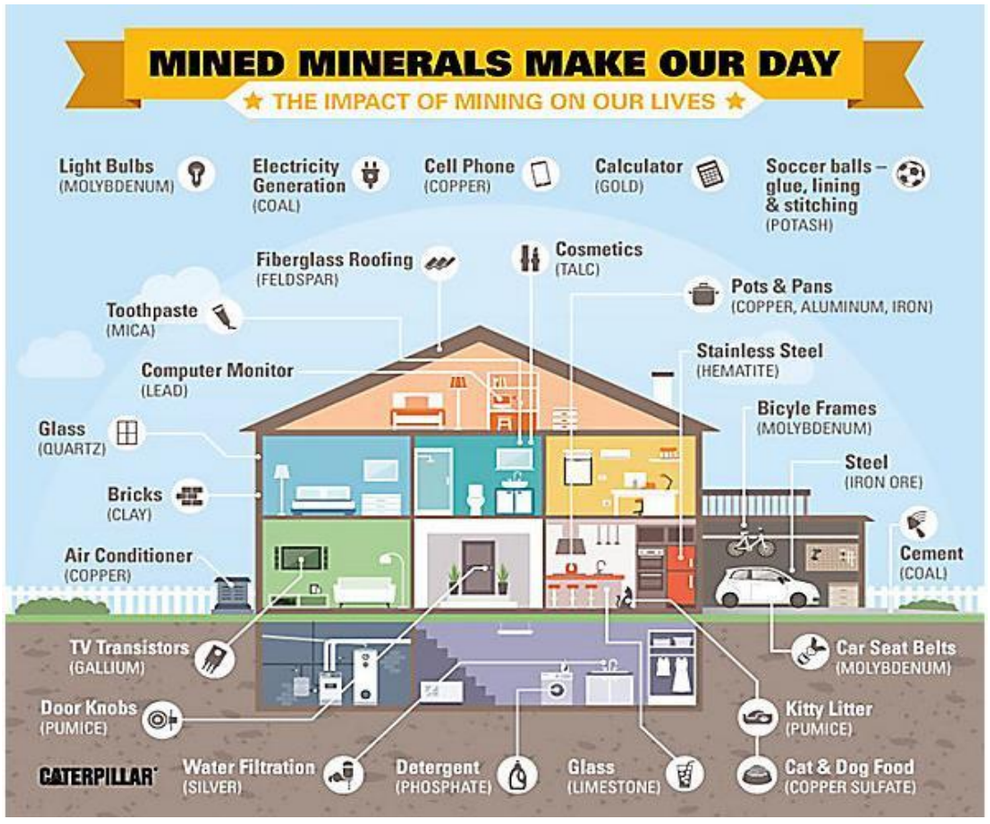


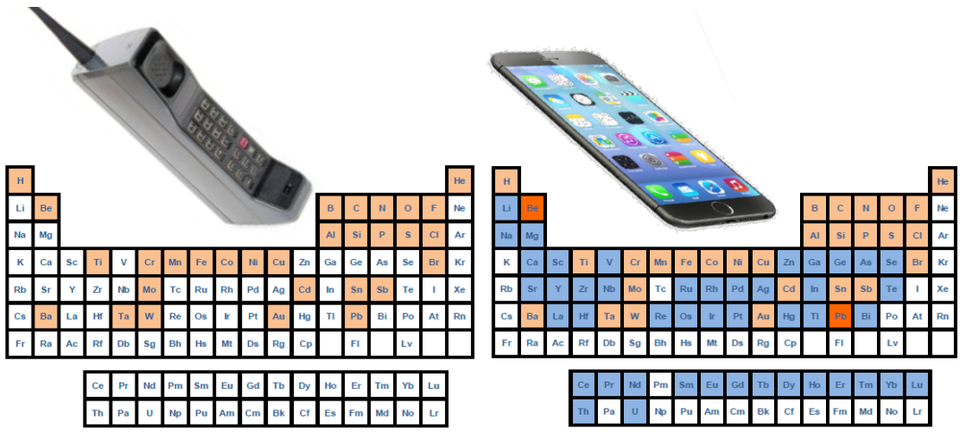
- Global outlook: Increasing demand for responsibly sourced minerals

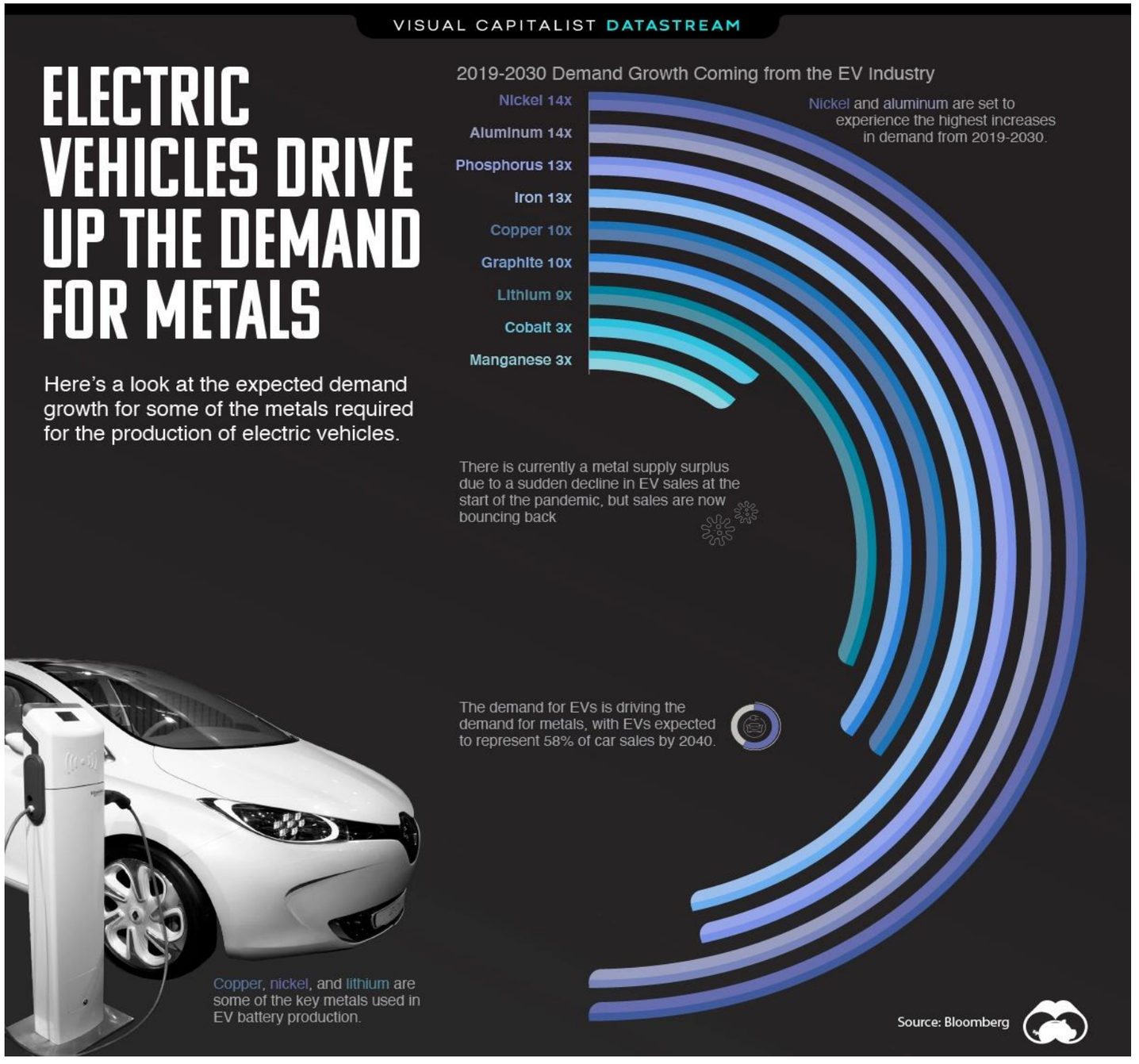
- Alaska's Advantage:
  - Environmental excellence
  - Community benefits

- The future: From mineral warehouse to mineral powerhouse

New Technologies are More Mineral Intensive







Growing Demand for Responsibly Sourced Minerals

THE WORLD BANK
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PRESS RELEASE | MAY 11, 2020

Mineral Production to Soar as Demand for Clean Energy Increases

WASHINGTON, May 11, 2020 — A new World Bank Group report finds that the production of minerals, such as graphite, lithium and cobalt, could increase by nearly 500% by 2050, to meet the growing demand for clean energy technologies. It estimates that over 3 billion tons of minerals and metals will be needed to deploy wind, solar and geothermal power, as well as energy storage, required for achieving a below 2°C future.

The report **"Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition"** also finds that even though clean energy technologies will require more minerals, the carbon footprint of their production—from extraction to end use—will account for only 6% of the greenhouse gas emissions generated by fossil fuel technologies. The report underscores the important role that recycling and reuse of minerals will play in meeting increasing mineral demand. It also notes that even if we scale up recycling rates for minerals like copper and aluminum by 100%, recycling and reuse would still not be enough to meet the demand for renewable energy technologies and energy storage.

"Over 3 billion tons of minerals and metals will be needed to deploy wind, solar and geothermal power, as well as energy storage, required for achieving a below 2°C future."

Is Recycling the Solution?

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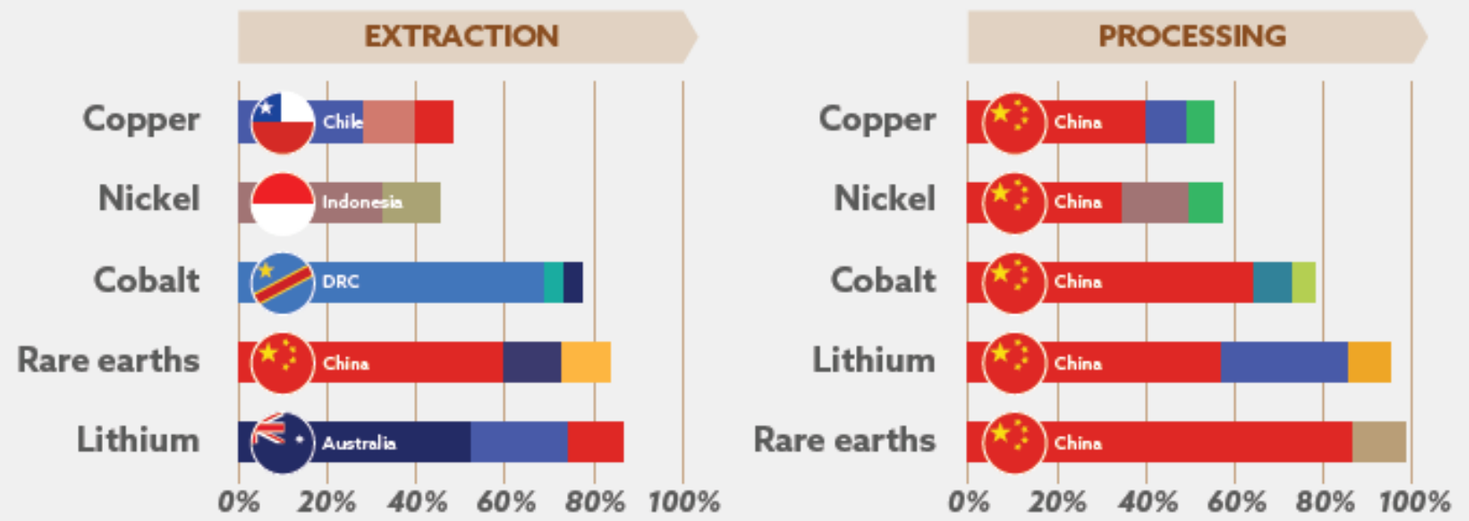
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"…even if we scale up recycling rates for minerals like copper and aluminum by 100%, recycling and reuse would still not be enough to meet the demand for renewable energy technologies and energy storage."

The US Dependency on Mineral Imports

The U.S. is home to an estimated **$6.2 trillion** in minerals, but we had net imports of **$90 billion** worth of minerals in 2021 alone.[2]

SHARE OF TOP THREE COUNTRIES EXTRACTING/PROCESSING CRITICAL MINERALS[5]



Source: IEA, *The Role of Critical Minerals in Clean Energy Transitions*

* Countries shown represent an indication of top market producers and consumers in each case.

MINERALS MAKE LIFE

Footnotes:

2. USGS (2022), USGS Mineral Commodity Summaries 2022 https://pubs.usgs.gov/periodicals/mcs2022/mcs2022.pdf

5. https://elements.visualcapitalist.com/visualizing-chinas-dominance-in-clean-energy-metals/

MINERALSMAKE**LIFE**.ORG

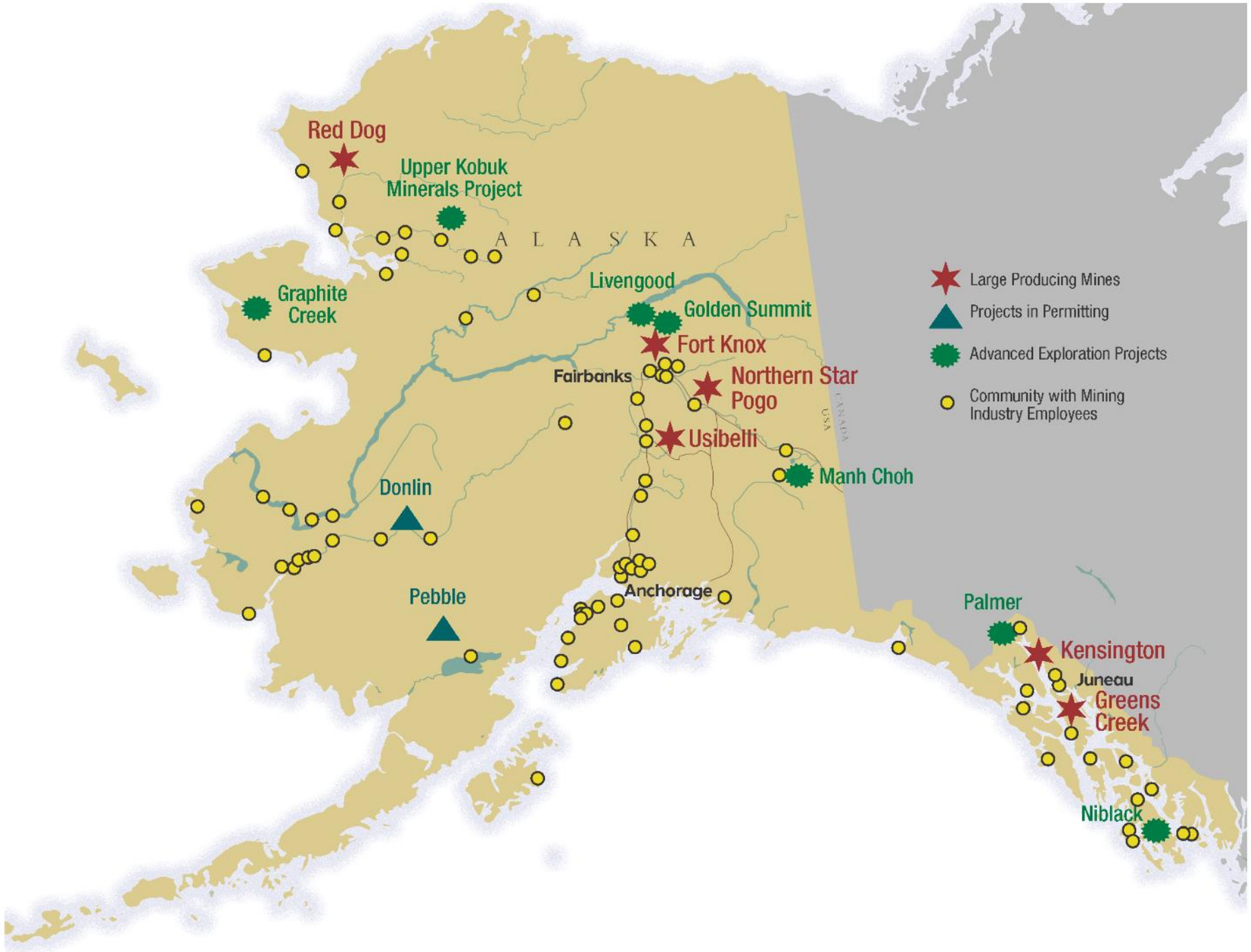
Bipartisan Support for Domestic Mineral Development

President Biden: "**We can't build a future that's made in America if we ourselves are dependent on China** for the materials that power products of today and tomorrow." 02/22/2022

Senator Sullivan: "**Alaska has the critical minerals the world needs** now to support all of these new technologies and of course to support our nation's national defense.
02/07/2023

Senator Murkowski: "I've been working diligently to educate my colleagues and the administration about the **vast potential of states like Alaska, and the importance of allowing us to use the resources that are in our own backyard**." 06/23/2022

Mining in Alaska: Part of the Solution



Alaska's Advantage

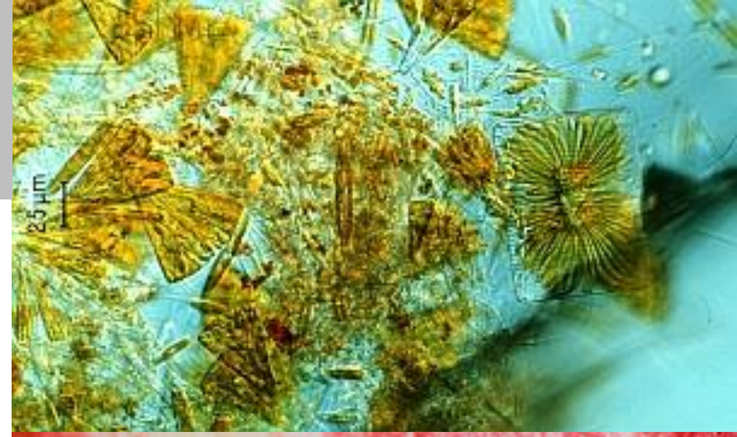
- Strict environmental regulations
- Excellent track record
- Community benefits



Strict Operational Oversight

Alaska: the best mine monitoring system in the world

- Water quality monitoring
- Bottom-to-top comprehensive biomonitoring
- 3rd party audits





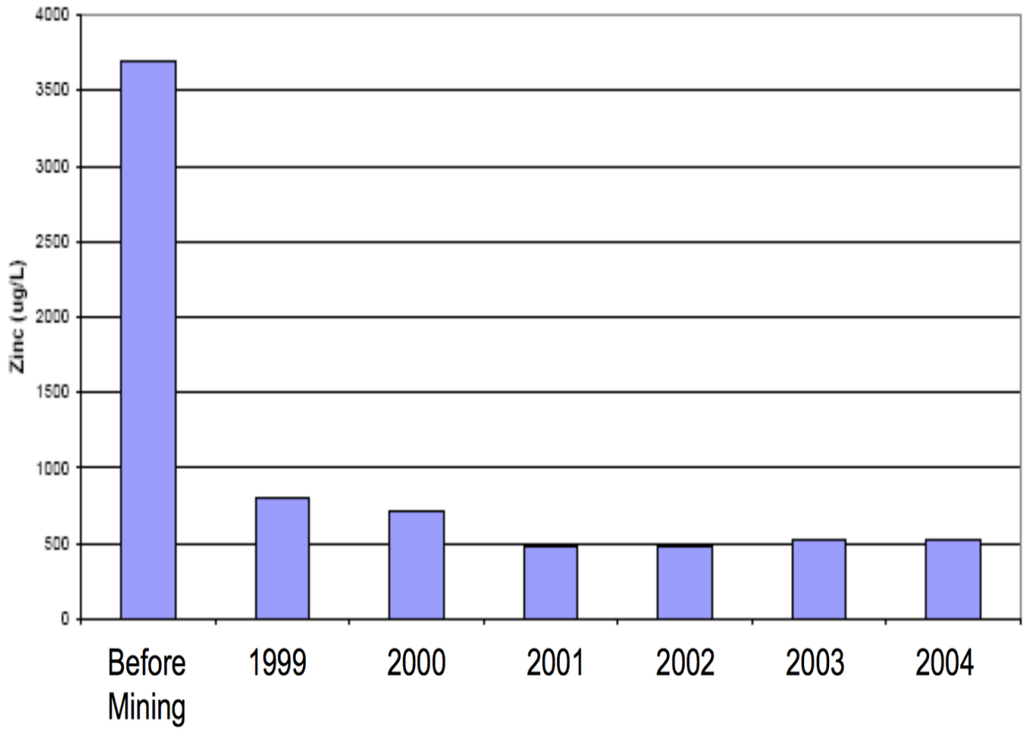


Red Dog Improved Water Quality

Red Dog Creek upstream from the mine



Zinc levels reported to DEC and EPA



Source: EPA Environmental Assessment NPDES Permit (AK-003865-3) Renewal – January 2006

Natural mineralization made Red Dog Creek toxic to fish. Water discharged from mine improved water quality and the creek now supports Arctic grayling and Dolly Varden.

Fort Knox Restored Nearby Creek





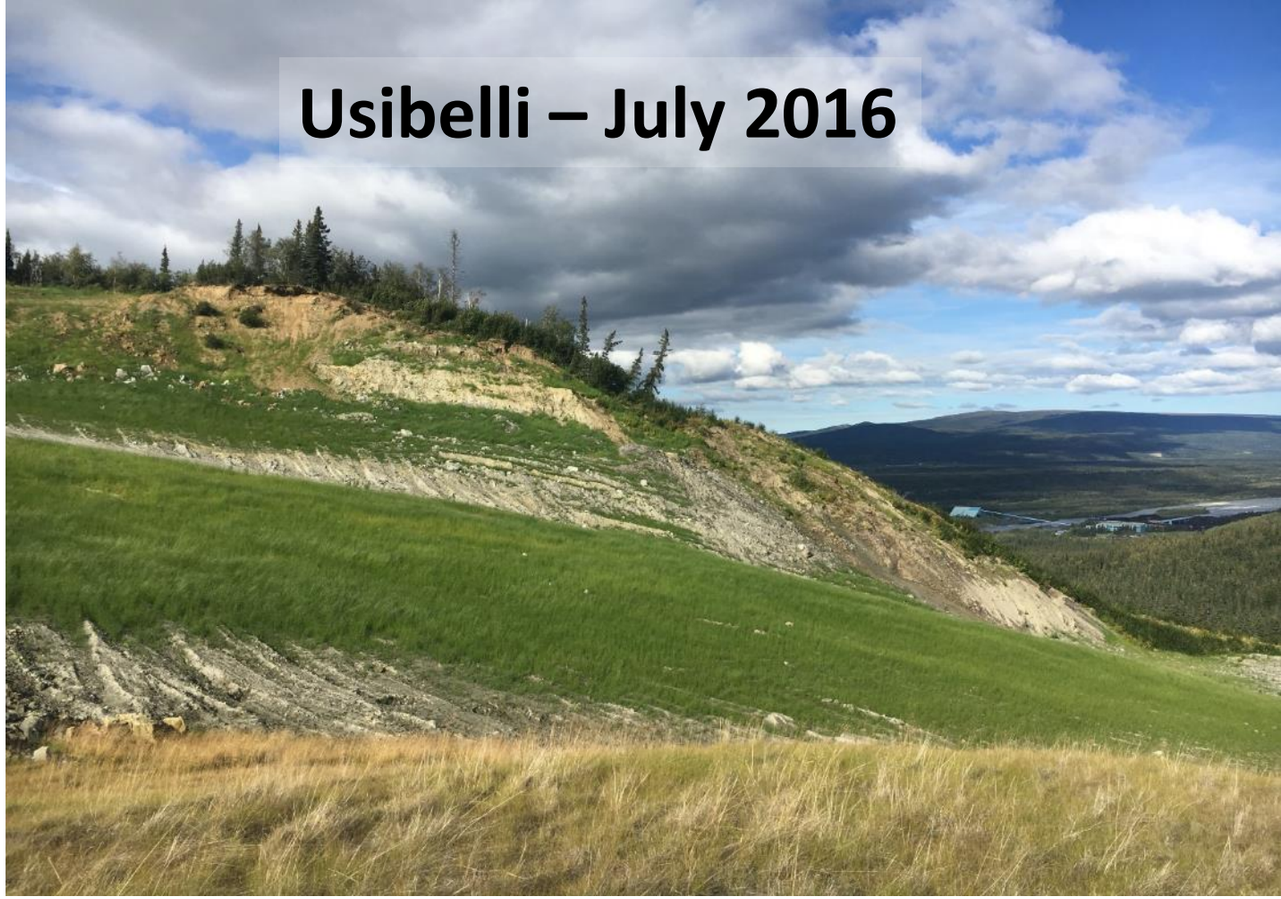
3. Award winning restoration project completed



Greens Creek Improved Fish Passage







Reclamation and Closure

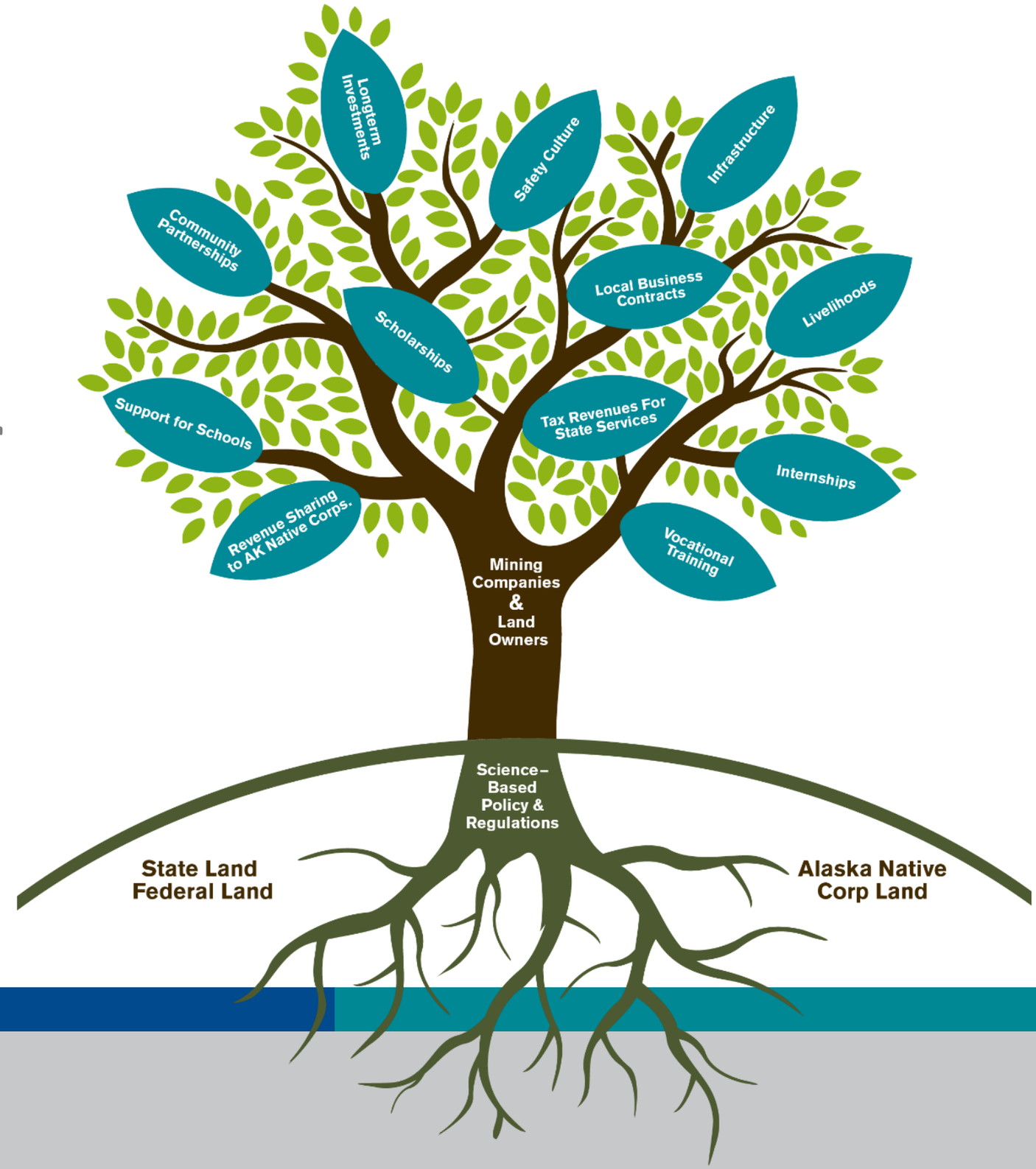
- Alaska law (AS 27.19) requires that a mine site must be returned to a stable condition compatible with the post-mining land use
- Plan must be approved by DNR Commissioner *before* operations begin
- Financial assurance applies to all companies
- Reviewed every 5 years or earlier if necessary

True North – Kinross Alaska

DNR Commissioner Corri Feige: “The developers leased state land, produced a valuable commodity to serve global markets, employed Alaskans, and paid state taxes and royalties. When they were done, they remediated the effects of their work and returned the land to the state for its next use. The system works.”

October 27, 2020

Benefits for Alaska and Alaskans



Mine Workers Live in ~90 AK Communities



Local Mines Support Local Businesses





$1 billion spent on goods and services from 450+ AK vendors in 2022

Training Opportunities and Jobs for Alaskans

- $2.7 million to UA and vocational schools in 2022
- AVTEC, MAPTS, underground mine training center
- On-the-job training
- Scholarships: UA, ANSEP
- 11,400 direct, indirect & induced jobs



Benefits to Alaska Native Corporations



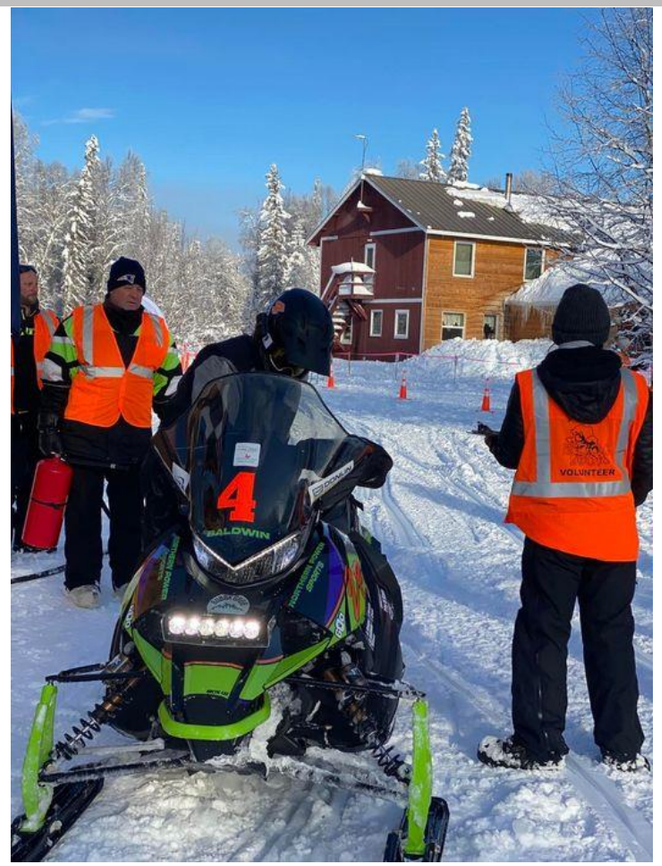


- ANCSA 7(i) and 7(j) royalty sharing:
  - $94 million to Alaska Native Corporations and at-large shareholders in 2022
  - $1.7 billion since 1989
- Jobs for shareholders. Red Dog example:
  - Regular: 52% NANA shareholders
  - Seasonal/temp: 97% NANA shareholders
- Business partnerships

Long-term Community Partnerships

$4.5 million contributed to ~280 AK non-profits in 2022



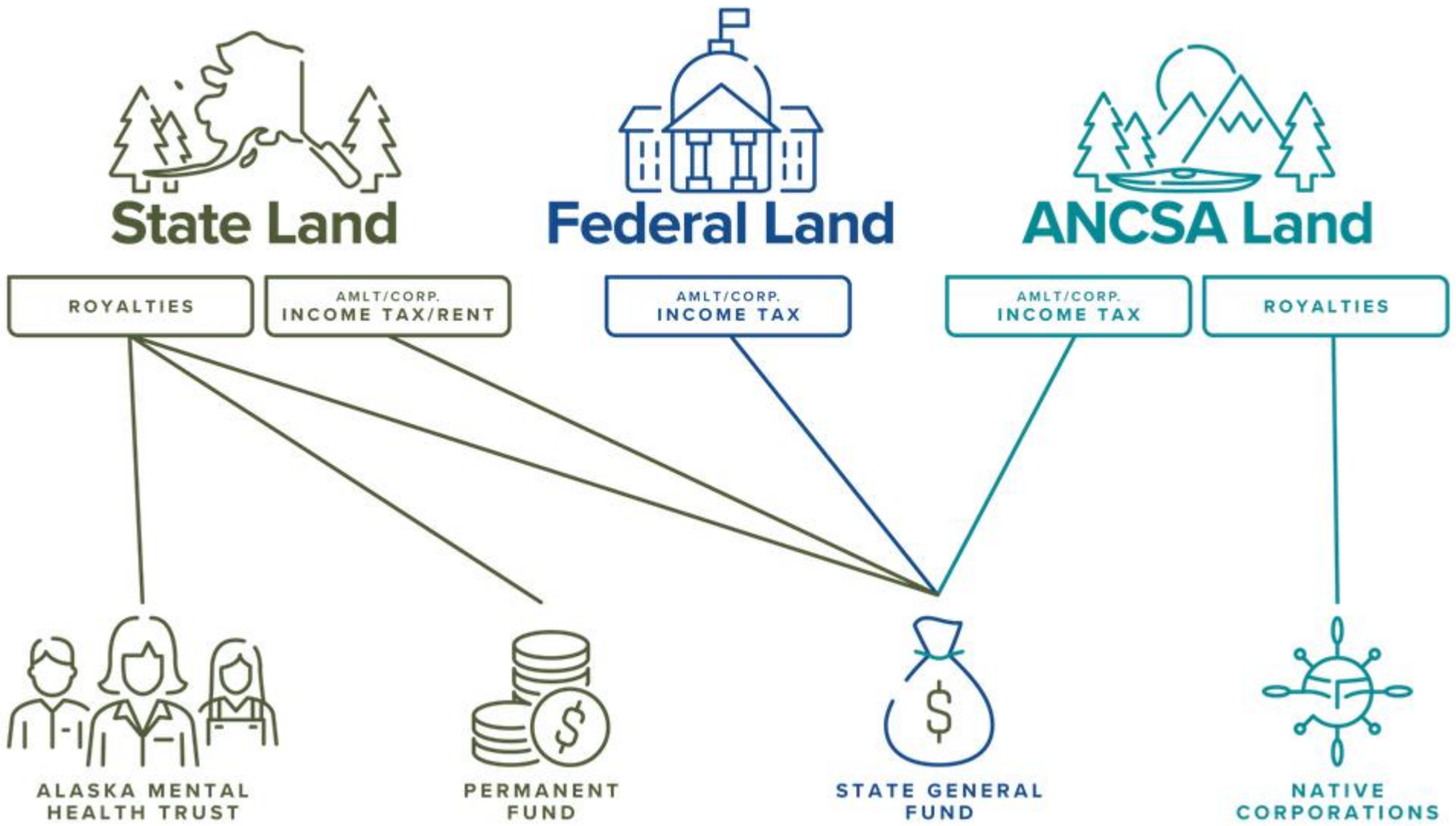








Mining Taxes and Royalties Depend on Land Status



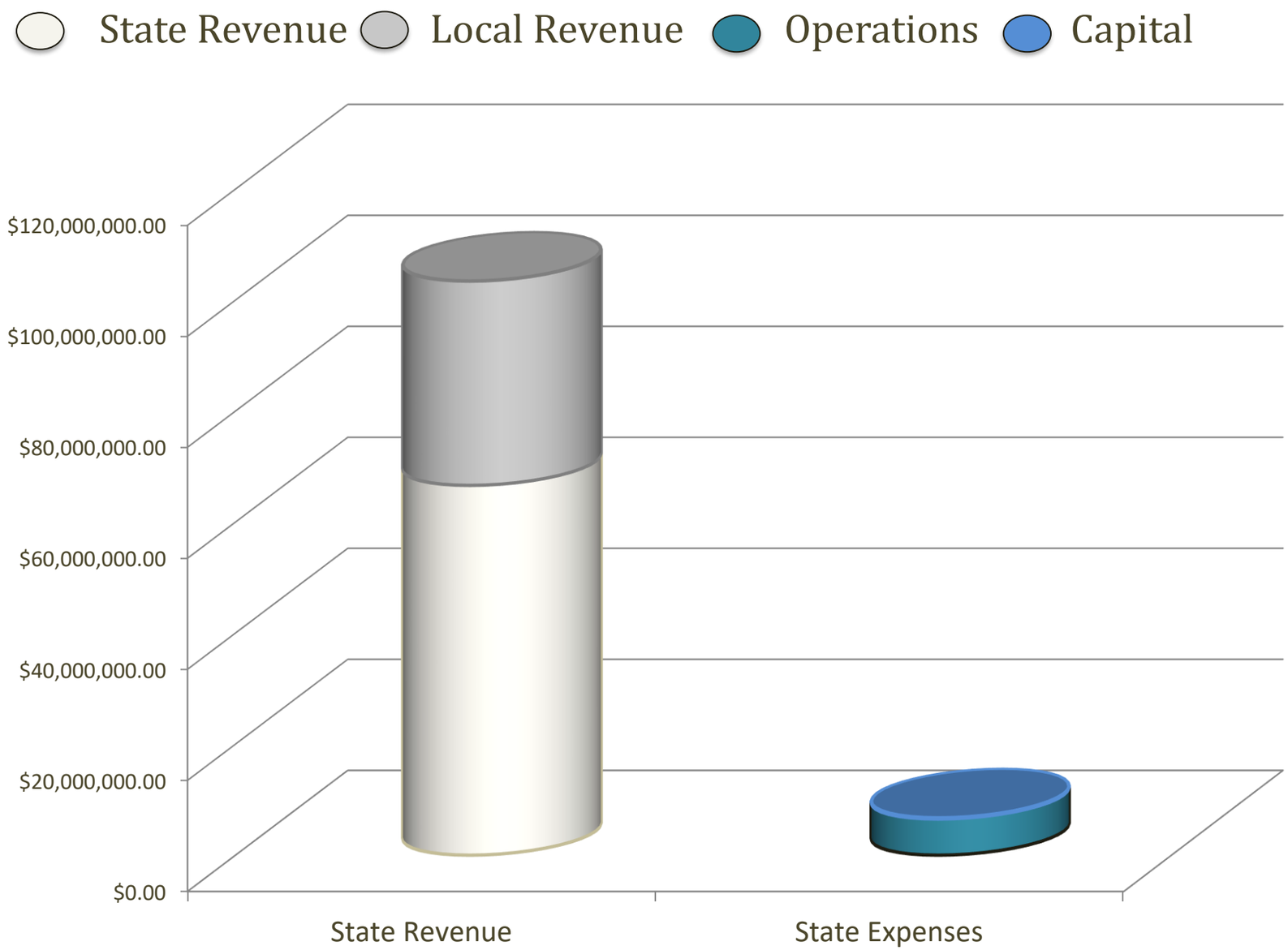
Mining Industry Payments to the State, 2022

Alaska Mining License Tax	$53,500,843
State corporate income tax	$17,837,133
State Fuel Taxes	$1,367,505
State mineral rents and royalties	$15,799,115
State material sales, other payments to DNR	$5,410,402
Large mine permit coordination program	$1,382,663
AIDEA facilities user fees	$13,400,000
AIDEA reimbursements for Ambler Access Road	$7,379,651
AMHTA (claims, rents, royalties, material sales)	$1,181,309
ARRC Mining Commodity Movement	$15,000,000
TOTAL	**$130,875,958**

McKinley Research Group (MRG), 2022 Mining Industry Economic Benefits Update, 02/24/2023. Sources: ADOR, ADNR, AIDEA, AMTHA, ARRC, Ambler Metals, and MRG estimates.

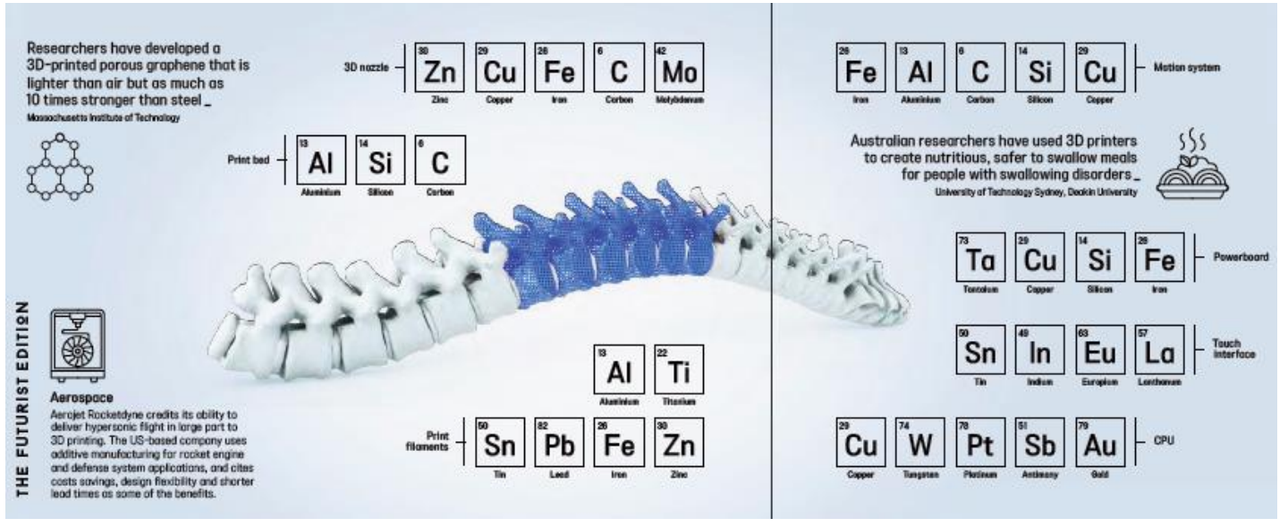
Notes: State Fuel Tax is based on a five-year average (2016-2020). ARRC payments are based on 2021 figures.

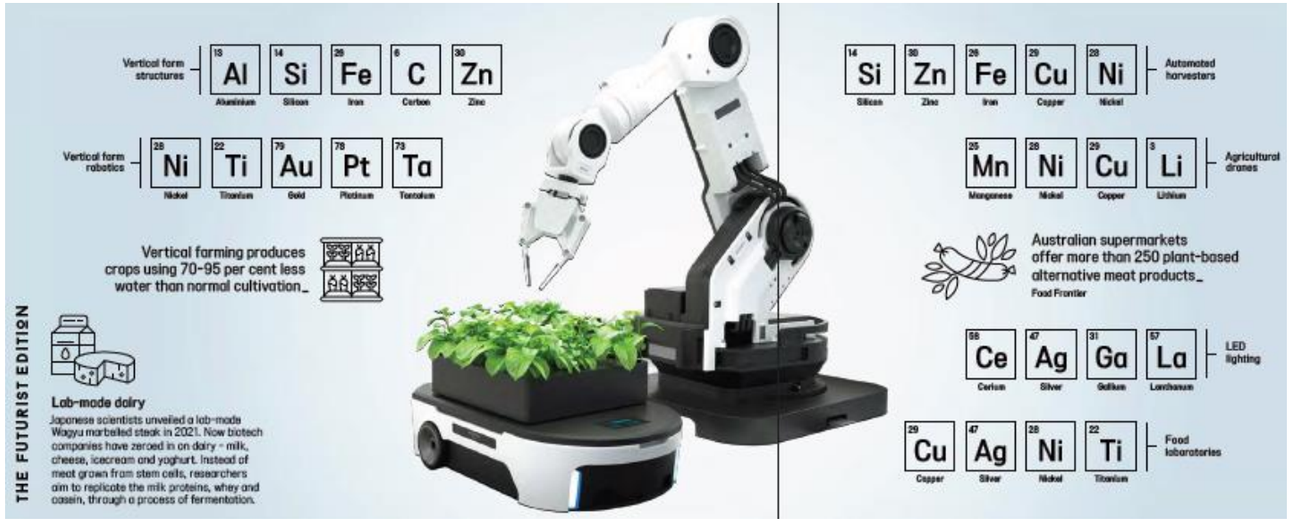
Mining Revenue vs. Costs to State

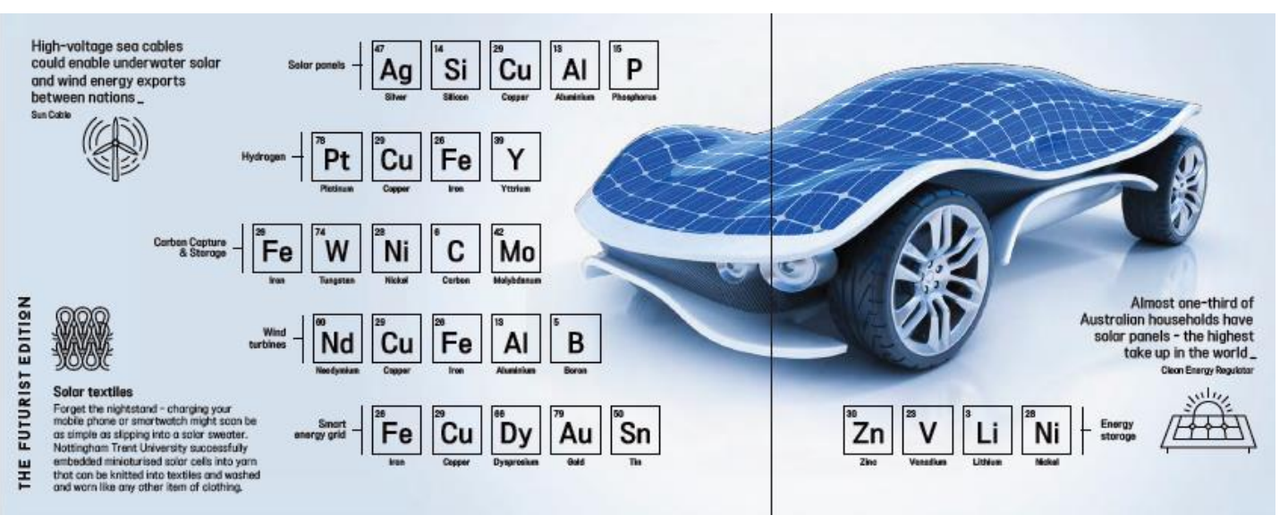


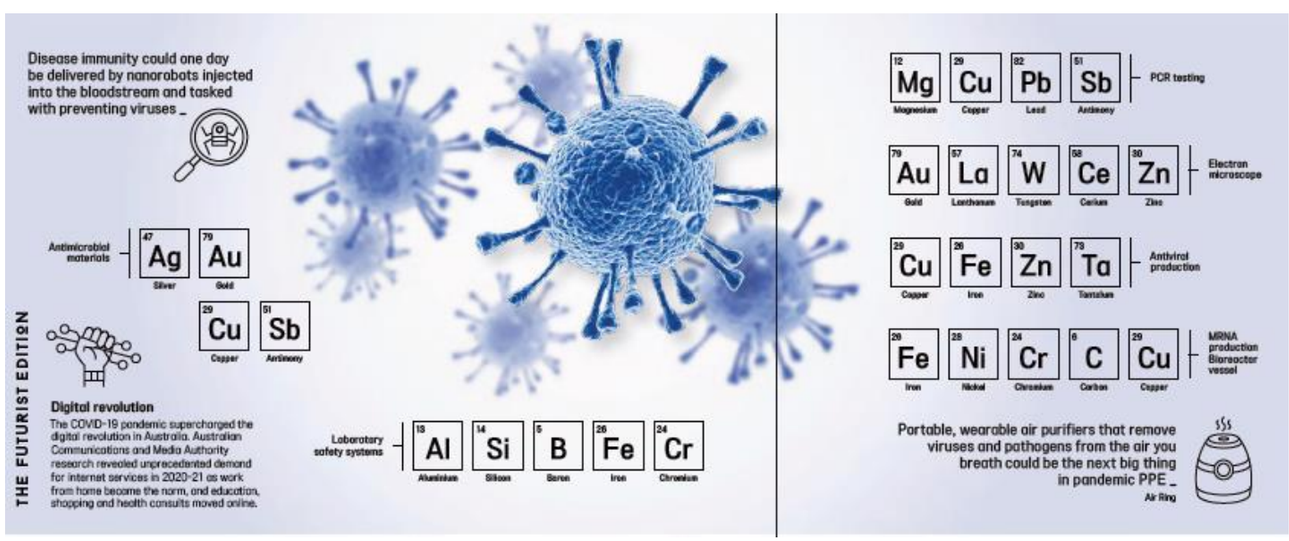
"Fiscal Effects of Commercial Fishing, Mining and Tourism Fiscal Years 2016-2019 What does Alaska receive in revenue? What does it spend?"
Bob Loeffler and Steve Colt, Institute of Social and Economic Research, UAA, 2022

The future is built on minerals

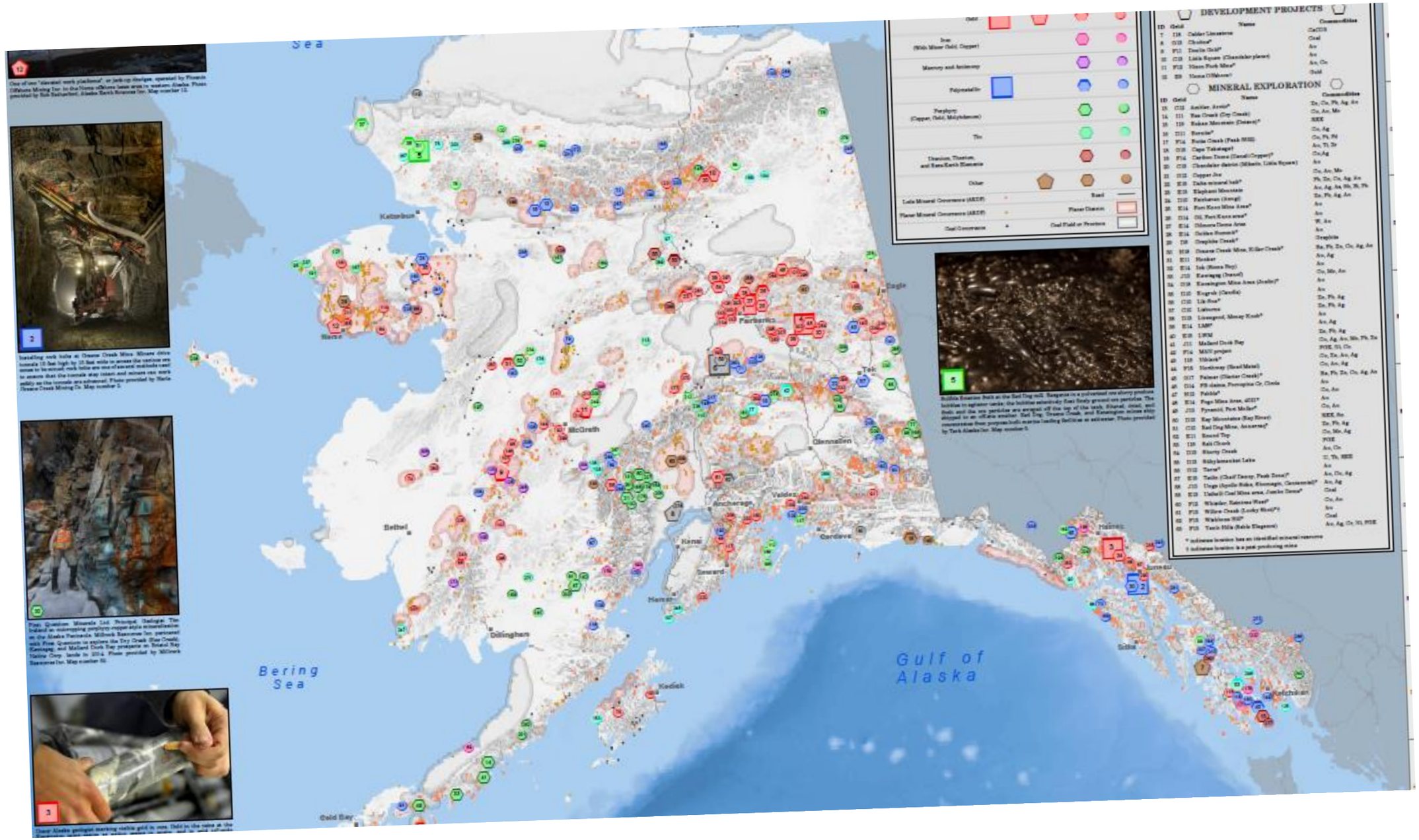






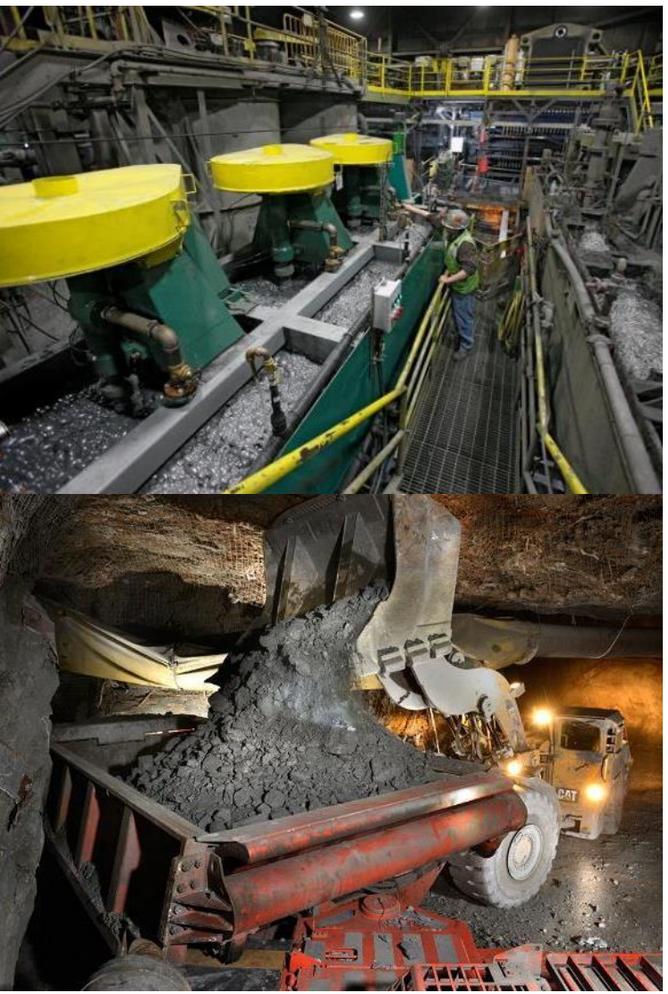


Alaska has unlimited potential…



…but will we unlock it?

Pathway to (mineral) prosperity



- Community support
- Infrastructure partnerships
- Stable fiscal climate
- Stable regulatory regime

Thank you

For more information:

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