

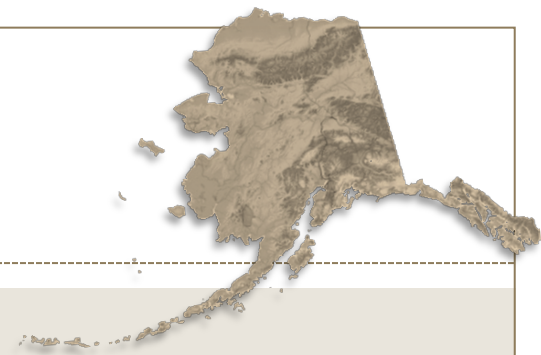
ALASKA

2nd Annual Strategic and Critical Minerals Summit

Alaska Department of Natural Resources
Commissioner Daniel S. Sullivan
www.dnr.alaska.gov

Photo by Colby Wright

2nd Annual Strategic & Critical Minerals Summit



- Welcome to Alaska's second annual Strategic & Critical Mineral Summit
- We have a great diversity of attendees this year with representatives from Federal, State, and international government, private companies, Alaska Native corporations, and potential investors
- Goals for the summit are to highlight:
 - Challenges and opportunities
 - Information dissemination
 - Update on Alaska activities
 - Partnerships, networking and investment

2nd Annual Alaska Strategic & Critical Minerals Summit

Fairbanks, Alaska, 11-30-12

OPENING REMARKS

Welcome Remarks: Mayor Jerry Cleworth, *City of Fairbanks*, and Mayor Luke Hopkins, *Fairbanks North Star Borough*

Day's Overview: Dan Sullivan, *Commissioner, Alaska Department of Natural Resources*

MORNING ADDRESS

Honorable U.S. Senator Lisa Murkowski, *Ranking Member, U.S. Senate Committee on Energy and Natural Resources*

PRESENTATIONS: Investigating Alaska's Strategic Mineral Potential

Bob Swenson, *State Geologist and Director of the Division of Geological and Geophysical Surveys, Alaska Department of Natural Resources*

Larry Meinert, *Mineral Resources Program Director, U.S. Geological Survey*

Curtis Freeman, *Avalon Development Corporation*

PRESENTATIONS: Access to Alaska's Lands and Resources

Honorable Alaska Senator John Coghill, *Alaska Senate Majority Leader*

Ed Fogels, *Deputy Commissioner, Alaska Department of Natural Resources*

Ethan Schutt, *CIRI*

Matt Ganley, *Bering Straits Regional Corporation*

Lance Miller, *NANA Regional Corporation*

KEYNOTE ADDRESS

Michael Silver, *President and Chairman of the Board, American Elements*

PRESENTATIONS: Strategic Minerals – National Policy and Global Security

Dan McGroarty, *President, American Resources Policy Network*

Hiroyuki Katayama, *Assistant General Manager, Japan Oil, Gas and Metals Corporation (Vancouver Office)*

PRESENTATIONS: Project Research, Development and Financing

Susan Bell, *Commissioner, Alaska Department of Commerce, Economic Development & Community Affairs*

Mark Myers, *Vice Chancellor of Research, University of Alaska Fairbanks*

Ken Collison, *Chief Operating Officer, Ucore Rare Metals*

Mark Davis, *Alaska Industrial Development & Export Authority*

PRESENTATIONS: Regulatory and Stakeholder Issues

Tom Crafford, *Alaska Department of Natural Resources*

Karl Hanneman, *Alaska General Manager, Livengood Project, Tower Hill Mines Inc.*

Mary Sattler, *Donlin Gold*

Lorna Shaw, *Chair, Greater Fairbanks Chamber of Commerce*

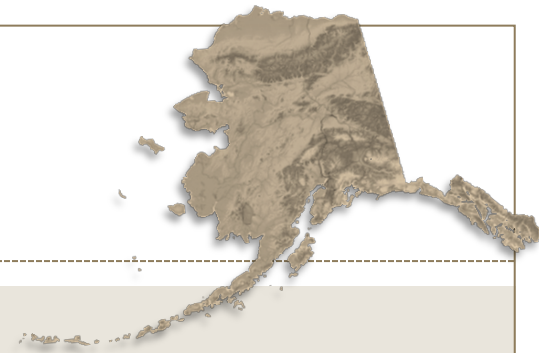
CLOSING REMARKS

The Honorable Lieutenant Governor Mead Treadwell

RECEPTION AND INVESTOR NETWORKING AT THE MUSEUM OF THE NORTH

Secure Alaska's Future:

Strategic & Critical Minerals



Objective:

To highlight Alaska's potential for exploration, development, and processing of strategic and critical minerals, including Rare Earth Elements (REEs)

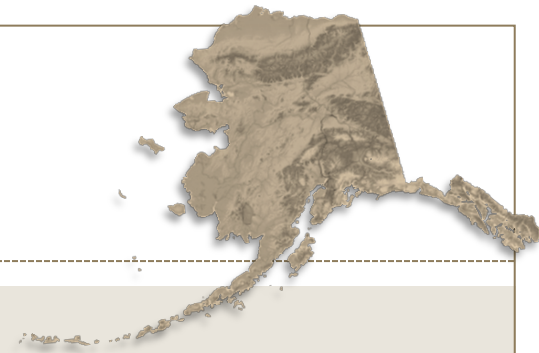


“Secure Alaska's Future: Strategic Minerals” is a comprehensive strategy that will:

- I. Undertake a statewide assessment of Alaska's strategic mineral potential
- II. Provide support for the development of known or highly prospective strategic mineral occurrences throughout Alaska through infrastructure partnerships and incentives
- III. Improve the structure and efficiency of permitting processes in order to expedite mineral development, including strategic minerals
- IV. Deepen partnership and cooperation with the federal government, local governments, Native corporations, and other potential new entrants to encourage domestic exploration, development, and processing of REEs and other strategic minerals
- V. Attract new investment and markets for Alaska's abundant mineral resources

Alaska as a Storehouse

Strategic Minerals



Despite huge potential for mineral development, Alaska remains largely unexplored.

The State of Alaska Ranks in the *Top Ten in the World* for Important Minerals, Including:

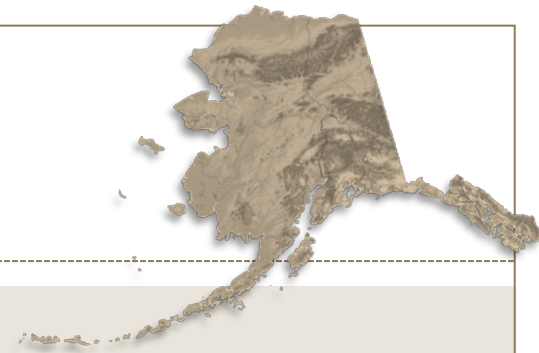
- **Coal:** 17% of the world's coal; *2nd most in the world*
- **Copper:** 6% of the world's copper; *3rd most in the world*
- **Lead:** 2% of the world's lead; *6th most in the world*
- **Gold:** 3% of the world's gold; *7th most in the world*
- **Zinc:** 3% of the world's zinc; *8th most in the world*
- **Silver:** 2% of the world's silver; *8th most in the world*

USGS estimates

According to the USGS, Alaska has more than 70 occurrences of Rare Earth Elements (REE), including at the Bokan Mountain prospect in Southeast Alaska.

Alaska Mining Update

Recent Mining Activity



In 2011, the gross mineral production value from Alaska totaled \$3.8 billion, up 16% since 2010.

Mineral ore production had an export value of \$1.8 billion in 2011, nearly 40% of Alaska's total exports.

- **Producing Mines in Alaska**

- **Red Dog:** one of the world's largest zinc mines, produced over 555k tons of zinc and 78k tons of lead in 2011
- **Greens Creek:** among the world's top 10 silver mines, produced over 9.48 million ounces of silver, 56k ounces of gold, and 73k tons of zinc in 2011
- **Pogo:** produced 356k ounces of gold in 2011
- **Fort Knox:** produced 289.8k ounces of gold in 2011
- **Usibelli:** produced a record 2.2 million tons of low sulfur coal in 2011, exporting half of its production
- **Nixon Fork:** gold and copper mine re-opened in 2011 and still in pre-commercial production phases
- **Kensington:** 2011 was first year of production for this new gold mine—produced 88,420 ounces of gold

Alaska Mining Update

Recent Mining Activity



In 2011, mineral exploration investment in Alaska totaled \$365 million - accounting for about one-third of the total spent on exploration in the U.S.

- **Advanced exploration projects include:**
 - ***Pebble:*** ~ 80.6 billion pounds of copper, 107.4 million ounces of gold, and 5.6 billion pounds of molybdenum
 - ***Bokan Mountain:*** enriched in yttrium, dysprosium, and critical heavy Rare Earth Elements
 - ***Donlin:*** ~ 42.3 million ounces of gold
 - ***Money Knob:*** ~20.6 million ounces of gold
 - ***Niblack:*** ~7.3 million tons of polymetallic (copper, gold, silver, and zinc) volcanogenic massive sulfide project
- 30 exploration projects spent more than \$1 million each in 2011
- \$2.8 billion has been spent on mineral exploration in Alaska since 1981

Alaska Update

Strategic Minerals

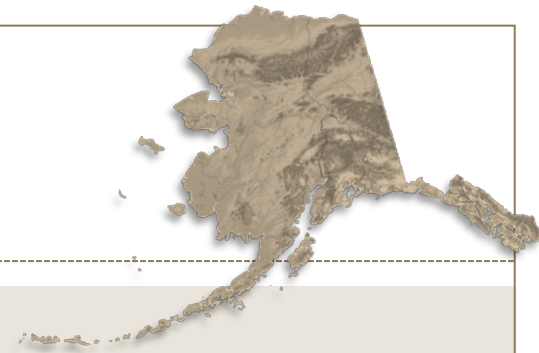


Accomplishments and activities by the State of Alaska since last year's summit:

- \$2.73 million dollars appropriated to DGGs to evaluate Alaska's strategic and critical mineral potential statewide
- UAF and DCCED research collaboration on techniques for processing rare earth minerals
- DNR continues to work on Governor's permitting reform initiative
 - During FY12, the permit backlog was reduced by 31.4%, or 835 cases
 - Legislature passed Governor's HB 361, which included the highest priority changes related to leasing and disposal programs to help reduce applicant costs, create efficiencies, reduce redundancies and reduce opportunities for legal challenges
- Significant projects are advancing through the State permitting process, e.g. Donlin Gold, Ft. Knox, and Red Dog

Striking *the* Balance

Robust Environmental Standards

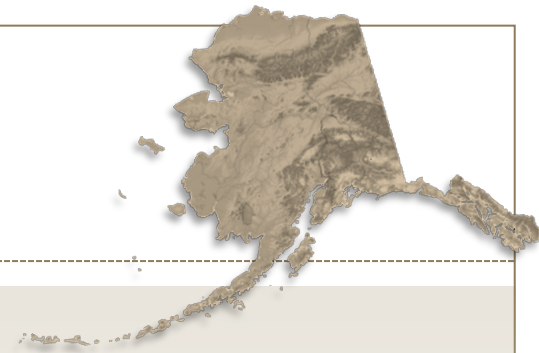


- The State of Alaska has an exceptional record of responsibly developing our resources while protecting the environment
- Hydrocarbon and mineral development in Alaska are conducted in a safe and responsible manner, with some of the most stringent standards in the world
 - “Best Interest Findings”
 - “No impact exploration”
 - The state will not lease acreage in sensitive areas
 - Whenever possible, onshore pipelines are buried to minimize impacts on wildlife – if pipelines are built above ground, they are elevated so caribou can migrate
 - Reclamation enclosure plans and financial assurance is required before construction or operation of a mine
 - Environmental audits tied to the renewal of permits and are conducted every 5 years
 - Monitoring of air and water quality and bio-monitoring continuous during operation
 - Post-closure monitoring requirements



Striking *the* Balance

Robust Environmental Standards

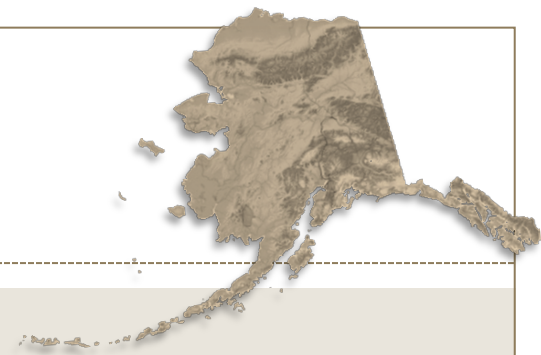


- Responsible resource development and protecting the environment go hand in hand
- Our efforts to protect the environment and wildlife have been successful. For example:
 - The Central Arctic caribou herd, which occupies summer ranges surrounding Prudhoe Bay—the largest oil field in North America—has grown from 5,000 in 1975 to over 66,000 today.
 - Red Dog mine has been operational since 1989 and monitoring has shown continued health in aquatic systems and even increased populations of fish.
 - Fort Knox mine has successfully worked to establish self-sustaining populations of Arctic grayling and burbot in their water supply reservoir (WSR).

Because of efforts taken by federal, state, and local governments and by industry, resource development in Alaska is conducted in a safe and responsible manner with standards that exceed most other jurisdictions in the world.



Conclusion



Thank You Fairbanks!

*Opportunities – Jobs, Jobs, Jobs
4,100 jobs with an average wage of \$100,140 in 2010*

Partnerships

Responsible Resource Development

Let's Get to Work

