

The Economic Benefits of ALASKA'S MINING INDUSTRY



Mining is a growing force in Alaska's economy providing jobs for thousands of Alaskans and millions of dollars of personal income throughout Alaska. Alaska's mining industry includes exploration, mine development, and mineral production. Alaska's mines produce coal, gold, lead, silver, zinc, as well as construction materials, such as sand, gravel, and rock.

In 2016, Alaska's mining industry provided:

- ◆ 4,350 direct mining jobs in Alaska.
- ◆ 8,600 total direct and indirect jobs attributed to Alaska mining industry.
- ◆ \$675 million in total direct and indirect payroll.
- ◆ Some of Alaska's highest paying jobs with an estimated average annual wage of \$108,000, almost twice the state average for all sectors of the economy.
- ◆ \$23 million in local government revenue through property taxes and payments in lieu of taxes.
- ◆ \$81 million in state government-related revenue through rents, royalties, fees, and taxes.
- ◆ \$111 million in payments to Alaska Native corporations.
- ◆ Mostly year-round jobs for residents of more than 50 communities throughout Alaska, half of which are found in rural Alaska where few other jobs are available.

Largest Producing Mines and Selected Advanced Exploration Projects

State and Local Government Tax Obligations

	Land Status	Mining License Tax	State Royalty Payments	Local Govt. Tax Payments
Producing Mines				
Fort Knox	State/Mental Health Trust	●	●	●
Greens Creek	Private	●		●
Kensington	Private/Federal/State	●	●	●
Pogo	State	●	●	
Red Dog	Private	●		●
Usibelli Coal	State	●	●	●
Advanced Exploration Projects				
Bokan Mountain	Federal	●		
Chuitna Coal Project	State/Mental Health Trust/Private/Borough	●	●	●
Donlin Gold	Private	●		
Livengood	State/Mental Health Trust/Federal	●	●	
Niblack Project	State/Federal	●	●	
Pebble Project	State	●	●	●
Upper Kobuk	State/Federal/Private	●	●	
Wishbone Hill	State/Mental Health Trust/Private	●	●	●

2016 Economic Benefits

estimated

Exploration

- ◆ More than \$65 million spent on exploration.
- ◆ \$3.4 billion spent on exploration since 1981.

Development

- ◆ \$120 million spent on mine construction and other capital investment.

Production

- ◆ More than 600 placer mines permitted produced approximately 83,000 ounces of gold with a gross production value of \$105 million (2014).
- ◆ At least \$17 million in production value from approximately 120 active rock quarries, and sand and gravel operations.
- ◆ Export value of \$1.5 billion, or 32%, of Alaska's total exports (2015).



Advanced Exploration Projects

Bokan Mountain

Rare earth elements

- Ongoing environmental baseline monitoring studies
- Constructed pilot plant to advance feasibility of separating rare earth derived ore
- 190 potential production jobs

Chuitna Coal

Coal

- Anticipate draft permit decisions in 2017-2018; public notices and review expected in early 2017
- 300-350 potential production jobs

Donlin Gold

Gold

- Discovered in 1988; exploration since 1995
- Permitting process began in 2012; final EIS in 2018
- Up to 90% Calista shareholder hire on-site
- Up to 1,200 potential production jobs, depending on the production timeline

Livengood

Gold

- Placer mining began in 1914, lode exploration in 2003
- Approximately \$226 million invested to date
- Completed new pre-feasibility study after 2016 project optimization work
- 330 potential production jobs

Niblack

Copper, gold, silver, and zinc

- Ongoing exploration for more than 35 years
- \$43 million invested since 2009
- Focused on engineering, environmental, and other technical studies to support the prefeasibility study
- 160-200 potential production jobs

Palmer

Zinc, copper, gold, and silver

- Focused on resource evaluation and exploration drilling
- \$30 million invested since 2006
- 300 potential production jobs

Pebble

Copper, gold, and molybdenum

- Discovered in 1987 on State of Alaska land
- Ongoing exploration, engineering, and environmental studies since 2002
- Over \$150 million spent on environmental baseline studies
- Approximately 1,000 potential production jobs

Upper Kobuk Mineral Projects (Arctic & Bornite)

Copper, zinc, gold, and silver

- Significant exploration work conducted since 2011
- Preliminary Economic Assessments completed for underground and open pit operation (Arctic)
- Updated resource statement in 2014 (Bornite)
- Completed drilling program and technical studies in 2015-2016 (Arctic)
- Environmental baseline data collected (Arctic)

Wishbone Hill

Coal

- First mined in 1916; project feasibility study in 2011
- 75-125 potential production jobs

MINING EXP

Mineral Potential

Prospecting

Stake Claim

Drilling



MINING PRODUCT

Construction

Operation

Ongoing Environmental Studies, E

OPERATION TIMELINE



Mining Activity in Alaska

OPERATION TIMELINE



Protection, and Reclamation

Producing Mines

Fort Knox

Gold

- Alaska's largest producing gold mine; poured 7 millionth ounce in 2016
- Celebrated 20th Anniversary of production in 2016
- Largest single property taxpayer in the Fairbanks North Star Borough
- 660 employees in 2016

Greens Creek

Silver, zinc, gold, and lead

- Among the top 10 primary silver producers in the world
- Discovered in 1975, producing from 1989 to 1993, and continuously since 1996
- Largest property taxpayer in City & Borough of Juneau
- Largest Southeast Alaska for-profit employer, in terms of payroll
- 420 employees in 2016

Kensington

Gold

- Produced over 126,000 ounces of gold in 2015
- Exploration underway to expand ore zones
- Second largest Southeast Alaska for-profit employer, in terms of payroll – over \$44 million in 2015
- Second largest property taxpayer in City & Borough of Juneau
- 325 employees in 2015

Pogo

Gold

- Discovered in 1994, producing since 2006
- Celebrated 10th Anniversary of production in 2016
- Paid \$57 million in wages and benefits in 2016
- 317 employees in 2016

Red Dog

Zinc, lead, and silver

- The world's largest zinc concentrate producer
- Only taxpayer in the Northwest Arctic Borough
- Discovered in 1968, producing since 1989
- 600 employees (including contractors) in 2016

Usibelli Coal

Coal

- In continuous production since 1943
- Fuels 29% of Interior Alaska's electricity
- 110 employees in 2016

Strengthening Local Economies and Communities

Mining companies strengthen local economies by employing residents from more than 50 Alaska communities. The industry also purchases supplies and services from hundreds of Alaska businesses.

These mining companies are also a significant source of stable revenue for local governments, as well as significant state government revenue. In 2016, Alaska's mining industry paid:

An estimated total of \$22.6 million to local governments, including:

- ♦ \$8.8 million in payment in lieu of taxes by Red Dog to the Northwest Arctic Borough, plus \$2.0 million paid to the Northwest Arctic Borough School District.
- ♦ \$8.3 million in property taxes paid by Fort Knox to the Fairbanks North Star Borough.
- ♦ \$1.7 million in property taxes paid by Greens Creek to the City and Borough of Juneau.
- ♦ \$1.4 million in property taxes paid by Kensington to the City and Borough of Juneau.
- ♦ Tax payments to other local governments, including Denali Borough, City of Nome and others.
- ♦ Mining industry employees also pay local property and sales taxes.

An estimated \$36.7 million to state government in royalties, rents, fees, and taxes, including:

- ♦ \$28.1 million in mining license tax, rents, and royalties.
- ♦ \$1.6 million in corporate income tax collections.
- ♦ Approximately \$7.0 million in state material sales, miscellaneous fees, and other taxes.

A total of \$44.4 million in other state government-related revenues, including:

- ♦ \$17.5 million to the Alaska Railroad Corporation for moving coal, sand and gravel.
- ♦ \$24.3 million to Alaska Industrial Development and Export Authority for the use of state-owned facilities (DeLong Mountain Regional Transportation System and Skagway Ore Terminal).
- ♦ \$2.6 million to the Alaska Mental Health Trust for mining claim and lease rent and royalty payments, and construction material sales.

Partnering with Alaska Native Corporations

All Alaska Native corporations benefit from mining industry activity – in 7(i) and 7(j) royalty sharing provisions of ANCSA, in jobs for shareholders, or through business partnerships.

- ♦ \$108.7 million in royalty payments from Red Dog to NANA, of which \$65.8 million was redistributed in 7(i) and 7(j) royalty payments to other Alaska Native regional and village corporations, Kikiktagruk Inupiat Corporation, and at-large shareholders.
- ♦ Between 1982 and 2016, NANA received \$1.3 billion in royalties from Red Dog, of which more than \$860 million in 7(i) and 7(j) payments were redistributed to other Alaska Native corporations and at-large shareholders.
- ♦ 58% of the year-round jobs at Red Dog are filled by NANA shareholders, including Teck Alaska, NANA companies and other service providers.
- ♦ Calista Corporation received \$2.0 million in royalties and other revenue for mineral agreements, including lode exploration, placer gold production, and construction material sales in 2016.
- ♦ 44% of all employees at the Upper Kobuk Minerals Projects, including contractor hires, were NANA shareholders in 2016.
- ♦ Many other Alaska Native corporations have taken the opportunity to develop businesses that serve the mining sector, such as The Kuskokwim Corporation, Central Council Tlinglit & Haida Indian Tribes of Alaska, Goldbelt, Inc., Kake Tribal Corporation, Klukwan, Inc., Prince of Wales Tribal Enterprise Consortium, and Tyonek Native Corporation.

