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Alaska Native Claims

Released October 13, 2021

Alaska Native Claims is a special magazine published by Data Mine North. To order additional copies contact Rebecca Lasley at RebeccaL@miningnewsnorth.com

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ABOUT THE COVER:

Calista Corp. Vice President of Land and Natural Resources Tisha Neviq'aq Kuhns. As a Calista shareholder who lives a subsistence lifestyle and a geologist that worked at the 39-million-ounce Donlin Gold project for 12 years, Kuhns demonstrates how sustainable resource development and subsistence can support one another. Photo courtesy of Calista Corp.

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ADVERTISING: 907-242-6084 RebeccaL@miningnewsnorth.com Printed by Century Publishing, Post Falls, Idaho

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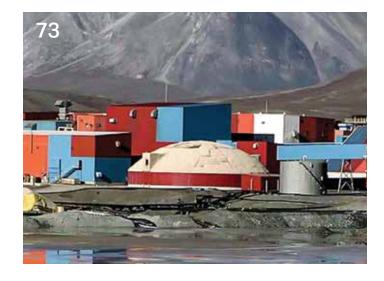
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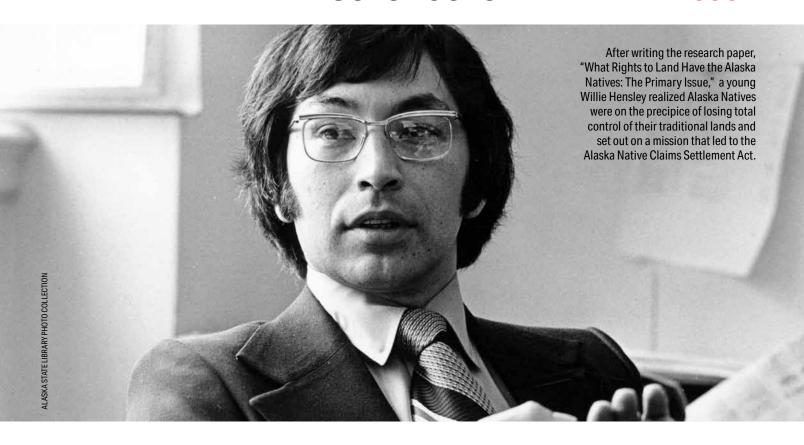
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GUEST COLUMN - PRIMARY ISSUE



What Rights to Land Have Alaska Natives

A research paper, \$20 for stamps, and a claim to Alaska lands

By William L. Iggiagruk Hensley Guest Writer

It is my good fortune to be asked to write a short piece on the Alaska Native Claims Settlement Act. My mother, Naungagiaq, would have been proud. She set me free to seek an education in a Tennessee boarding school when I was 14 – just at the time of my life that I could have been of help to her and the family in our hunting, fishing, and trapping world of the 1940s and 1950s. We had lived in three sod homes along the Little Noatak about a dozen miles from Kotzebue. She, in a way, sacrificed me so that I might have a chance to learn English and a trade and return to help her and our people. I know it was hard for her and the family to let me go.

This was before the snow machine came along and dogs were our means of winter travel. Our sources of food were many and varied—caribou, fish of all kinds—shii, trout, white fish, pike, lingcod, flounder, tomcod and Arctic char. We hunted seals and beluga in the spring and summer as well as caribou, rabbits, ducks, geese, and

ptarmigan. We collected edible plants and berries. For income, we trapped for land otter, fox, bear, muskrat, wolf, marten and an occasional polar bear. Our dependence on the western world's goods was limited and there were no expenses such as rent, electricity, tv, garbage collection, the internet, telephones, or life insurance. It was a different world than today. What we didn't know was that our way of life and our



Willie L. Iggiagruk Hensley

relationship with the land and the animal life were going

to come under extreme pressure in just a few short years.

The Bureau of Indian Affairs ran the schools, and their mission was to do everything possible to erase our languages, culture, and history. In the mind of Sheldon Jackson, the first director of education for the federal government back in the 1880s, their job was to prepare us to be the workforce of the emerging White majority. As a result, few Alaska Natives were exposed to any history of their people, the laws that governed relationships between the tribes and the government, nor anything whatsoever about the Russian colonial period, or the transfer of their interests to the United States in 1867. Nor did we know anything about the treaty or other laws that would have an impact on our lives and our lands and our institutions.

When I returned from four years of boarding school in East Tennessee and after graduating from George Washington University in 1966, I was a blank slate regarding not only Alaska history, but the history of my own Inuit people and that of all the other indigenous societies that occupied all of Alaska. The good news was that I had clung on to our language that I had absorbed as a child, as well as many of the values that guided the lives of our people in those days. The sense that your life was yours but there was an inherent obligation to help others. The notion of sharing...including knowledge, was strong. That was a part of the Inupiaq DNA.

The Primary Issue

I became conscious of the huge role of the Bureau of Indian Affairs in the life of American Indians and Alaska Natives through their control of the education system and the Indian health service.

As a college student I volunteered at the National Congress of American Indians when Vine Deloria became the president. I often wondered why Alaska was not more represented in the organization. Only the Tlingit were strongly represented. I saw how the tribes constantly appeared year after year petitioning Congress for help in all areas of their lives – schools, health care, roads, economic development, housing. I used to wonder, "where are our leaders from Alaska?"

After graduating from George Washington University, I enrolled at the University of Alaska to do graduate work in finance. I discovered there was a Constitutional Law course that was being taught by Judge Jay Rabinowitz and decided it might help me understand what the legal relationships were between Alaska Natives and the federal government and with the then seven-year-old State of Alaska.

In my loneliness for Alaska news, I used to read old Alaska newspapers at the Library of Congress and noted that there was a controversy developing due to the new state selecting huge chunks of Alaska lands that the villages said belonged to them.

I decided to write my research paper on the issue and

titled it "What Rights to Land Have the Alaska Natives: The Primary Issue." That research enabled me to reach the conclusion that Alaska Natives were on the precipice of losing total control of their traditional lands and no one was there to protect them. That realization was so overwhelming that I could barely sleep, and I knew that something had to be done. Otherwise, we would only be offered the opportunity to spend the next century litigating in the Court of Claims for a few cents an acre and no land whatsoever. (I had learned that the Tlingit and Haida had spent 35 years in litigation and only ended up with \$7.5 million and not one square inch of land in Southeast Alaska. I knew then that the old system of compensation was completely inequitable.)

Three primary comprehensions inspired me as a consequence of my research paper:

- Alaska Natives' aboriginal title had never been extinguished.
- The 104 million acres the Congress promised the new State of Alaska was going to be taken from Alaska Natives with no hearings or compensation despite the "disclaimer provision" in the act.
- The moment the Secretary of Interior signed an "interim conveyance" to the state, if there was ever any hope of Alaska Natives securing that land, that signature was an "extinguishment" of aboriginal title, and the land could never ever be retrieved.

The Court of Claims and Indian Claims Commission process was less than impecunious in its lack of equity, expensive, time-consuming, and resulted in no land being conveyed to indigenous claimants. The land was valued "at the time of the taking" which for Alaska Natives could have been a hundred years earlier and valued in the pennies an acre. Attorneys and consultants took huge percentages of the settlements.

Borrowing \$20 for stamps, I mailed a four-page letter to all our villages in the Northwest part of Alaska and that letter precipitated the organization of the Northwest Alaska Native Association (precursor to NANA Regional Corporation), and we filed a 30-million-acre claim in June of 1966 which the Bureau of Land Management accepted and gave it the number F-035294.

The government called it a "protest" to state selection. We called it a "claim."

Alaska Natives federate

Alaska is massive, and its 200 villages and myriad languages and cultures made it difficult to have a common strategy. It was also becoming clearer that the state and federal government did not anticipate the indigenous "uprising" that emerged over their deal to take Native lands in the 1959 Statehood Act. But in scattered locations across the state, village leaders began to realize the encroachment on their lands as the new state began its process of trying to turn indigenous lands into state and private wealth to fund the fledgling government and



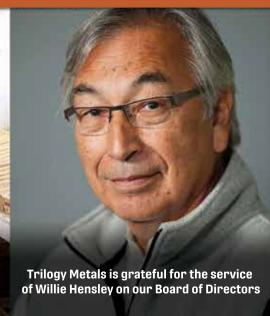


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its struggling economy.

There were individual recognized tribes under the Indian Reorganization Act of 1936 and a couple of regional entities (the Alaska Native Brotherhood and the Tanana Chiefs Conference) but no statewide entity. It was becoming clear that while each cultural group would have preferred to negotiate with the governments themselves, Alaska was being viewed as one large Gordian Knot of a problem – not easily resolved by negotiating with 200 villages.

In the fall of 1966, Emil Notti, president of the Cook Inlet Native Association, invited a small number of leaders from across the state to come to Anchorage to discuss land rights and other common issues in education, housing, and jobs. Because of pressures

that were being felt by the state land selections, over 200 people appeared. I was selected to chair the Land Committee (Charlie Etuk Edwardson of Barrow had made many copies of my research paper and distributed it to the attendees).

This was the first-ever statewide meeting of Alaska Natives in our 10,000-year history, and it occurred just before the election for Governor in early November. Candidates were falling all over themselves to get attention. Robert Atwood, the Publisher of the Anchorage Times, who was supporting businessman Walter J. Hickel, splashed a giant headline that read "Hickel Promises Native Department" to try to peel off village votes from the Democratic candidate Bill Egan.

My committee and the convention adopted our first

bargaining position: All lands that have been already taken will be determined by the Court of Claims, paid for, and the balance of the land should be deeded back to the indigenous Alaskans who still occupied those lands.

We knew that was an impossible request but that was our starting position in the land war that was to continue for five years from 1966 to 1971.

Find out more about how Alaska Natives united to overcome the seemingly impossible challenges and opposition to a fair settlement of lands for Alaska First People at ANCSA: an impossible challenge achieved on page 39.

ABOUT THE AUTHOR: Willie L. Iggiagruk Hensley is an Inupiat from the Northwest Arctic Region. He is an author, a college professor, and an Alaska Native leader who was instrumental in the formation of the Alaska Native Claims Settlement Act (ANCSA) of 1971, which restored 44 million acres of land to Alaska Natives. Hensley has been elected to both the Alaska State House of Representatives and the Alaska State Senate. He is one of the founders of NANA Regional Corporation. His autobiography, Fifty Miles from Tomorrow: A Memoir of Alaska and the Real People, was published in 2008. Hensley currently serves as a visiting distinguished professor in the College of Business and Public Policy at the University of Alaska Anchorage.

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ANCSA Landscape



A miner's guide to Alaska Native Claims

The path to developing a mine in Alaska goes through its First People

By SHANE LASLEY

Data Mine North

Alaska boasts what many consider the most successful aboriginal land claims settlement on Earth – a solution that has not only turned out to be a cultural success but a brilliant business move for the more than 140,000 Alaska Natives and an economic boon for the state that covers the resource-rich lands these industrious and innovative peoples have called home for millennia.

Signed into law by U.S. President Richard Nixon on Dec. 18, 1971, the Alaska Native Claims Settlement Act, commonly referred to as ANCSA, involved a unique plan to organize Alaska Natives into 12 regional corporations, with each having its own geographical regions based largely on heritage and shared interests.

More than 200 village corporations were also estab-

lished under ANCSA. Some village corporations within these regions have merged to form stronger business entities with shared interests, and in at least one instance, the village and regional corporations have

combined to provide a consolidated body for doing business.

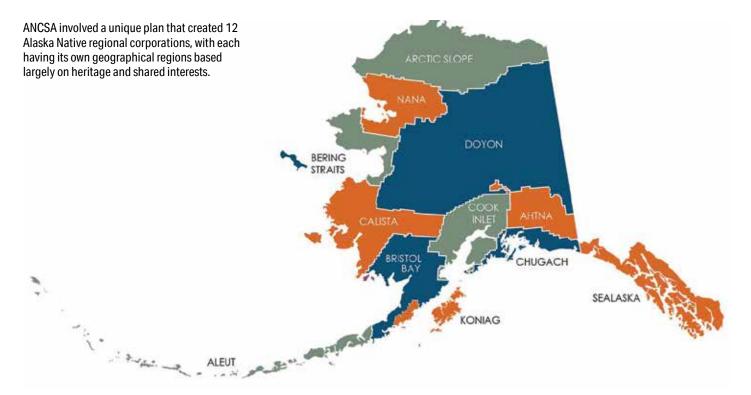
Eligible Alaska Natives had the opportunity to be issued shares in both a regional and village corporation at the time ANCSA was formed, shares that cannot be sold.

"In this way, ANCSA established a framework for ANCs (Alaska Native corporations) to provide for the economic, education, social and cultural well-being of current



Sophie Minich

and future generations of shareholders," Sophie Minich,



president and CEO of Cook Inlet Region Inc., the Alaska Native regional corporation more commonly known as CIRI, penned in a letter on the 50th anniversary of ANCSA.

For mining companies looking to explore and develop the rich mineral resources Alaska has to offer, understanding the ANCSA landscape early could be the difference between efficiently permitting and developing a successful mine with strong Alaska Native partners, or arduous work later to gain the social license and government permits needed for mining in one of the 12 ANCSA regions, a 424.5-million-acre northern expanse collectively known as Alaska.

For these reasons, an ANCSA map and information on the Alaska Native lands, people, corporations, and businesses has a place among the geological maps and mineral data for any prospector, explorer or miner looking to unlock Alaska's vast mineral potential.

Rise of ANCSA business titans

While placing aboriginal peoples who put more value into a successful whale hunt in Utqiagvik (the Far North community formerly known as Barrow) than being a wolf on Wall Street in a western corporate boardroom may not seem like a good fit, a look back at the past 50 years proves otherwise.

ANCSA regional and village corporations, and their business subsidiaries, make up 18 of the top 20 Alaska-owned businesses listed on the 2020 Top 49ers, an annual list published each year by the Alaska Business magazine that ranks Alaska-owned companies by gross revenue.

"The significance of ANCSA cannot be overstated,"

Minich wrote. "In the nearly 50 years since their creation by Congress, ANCs have grown to become an integral part of the Alaska economy, and given the current fiscal crisis brought about by the COVID-19 pandemic, their ongoing success and growth is critical."

This rise to the top business titans in the 49th State, however, was not without its travails.

"The transition to a corporate model was not easy. There were many challenges along the way, as people who had limited experience conducting Western business

» An ANCSA map, along with information on the Alaska Native lands, people, corporations, and businesses has a place among the geological maps and mineral data for any prospector, explorer, or miner looking to unlock Alaska's vast mineral potential.

were thrust into new roles," Anthony Drabek, a director of Koniag Inc., the regional corporation for the Kodiak Archipelago, penned in a column published earlier this year in the Anchorage Daily News.

This sudden shift from riverbank to boardroom, however, resulted in corporations built on environmental, social, and governance standards nearly five decades before ESG became a buzzword in the business world.

With a focus on persevering subsistence resources, safeguarding culture, and ensuring the prosperity of their Alaska Native shareholders – while at the same time being financially successful enough to carry out those priorities – the ideas of environmental steward-

ship, protecting and enhancing traditional values and culture, and honesty and integrity in business are enshrined in the core values and mission statements of ANCSA corporations.

"(W)hen you look at the results today, one could say that the Alaska Native corporations, or ANCs, created by ANCSA were some of the first socially conscious businesses. Who better to steward lands for the future than those who have subsisted off them for centuries?" Drabek penned. "Today, ANCs use our lands, as our ancestors did, but also to sustain our people in a Western economy, delivering billions of dollars in economic impact and thousands of jobs to Alaska."

Selecting resource-rich lands

The Alaska Native-owned business titans have achieved much of their corporate success off the oil and gas, minerals, and timber found on the roughly 44 million acres of lands they will own once all lands guaranteed under ANCSA are conveyed, an area about the size of Oklahoma.

When it came to selecting these lands, the criteria and priorities differed for ANCSA village and regional corporations.

For the most part, village corporations received title to surface rights and were instructed to select lands at and around their village. Regional corporations, however, were primarily given title to subsurface estate on lands they selected across the wider region.

Similar policies of selecting lands of cultural, subsistence, and natural resource significance were employed by all the ANCSA corporations as they began the process of choosing 44 million acres from the lands available following the passage of ANCSA.

It was often the case that village corporation land selections covered areas of cultural and subsistence significance, as well as for infrastructure, while regional corporations selected locations with the most potential for minerals and other natural resources.

On lands particularly rich in mineral resources, however, village and regional corporations often claimed both surface and subsurface ownership.

As a result of this land selection process, ANCSA corporations were able to gain ownership of highly prospective mineral lands across the state.

Red Dog, which accounts for roughly 5% of the global zinc mine production, for example, is located on lands owned by NANA Regional Corp., the ANCSA regional corporation for Northwest Arctic.

As a result of a net proceeds royalty from the production at Red Dog, which is now at 35% and climbs by 5% every five years up to 50%, NANA brings in significant revenue from this globally significant zinc mine, 70% of which is shared with the other 11 regionals corporations



and village corporations within them through Section 7(i) and 7(j) provisions of ANCSA.

▶ More information on ANCSA Section 7(i) and 7(j), can be read at **Sharing the hunt with ANCSA Section 7(i) on page 26.**

The 45-million-ounce Donlin Gold project is another prime example of the rich mineral lodes found on lands selected by ANCSA corporations.

Calista Corp., the ANCSA regional corporation for the Yukon-Kuskokwim region of Southwest Alaska, owns the mineral rights of this world-class gold deposit, and The Kuskokwim Corp., a village corporation within the Calista region, owns the surface estate covering Donlin.

These world-class deposits are just two of many other ANCSA corporation projects with massive mineral potential.

It is no accident that 12 ANCSA regional corporations and the village corporations within them ended up with some of the richest Alaska real estate known at the time.

Nelson Angapak Sr., who worked in the Calista Lands and Natural Resources department during the ANCSA regional corporation's early years, said these selections focused on lands of cultural significance and future economic potential.

"The policy of the lands department was that the village corporations must be advised to select the land with the most resource potential in terms of subsistence resources, mineral potential, and oil and gas potential, or any combination of the three," he explained.

Getting to know the people

While ANCSA regional and village corporations hold



Blueberries picked in the Ahtna region. Village corporation lands were often selected to cover areas of cultural and subsistence significance.

title to just over 10% of Alaska, their regions cover 100% of the Last Frontier.

This means that whether a mining company is looking to explore and develop mineral properties on Alaska Native, state, or federal lands, understanding the landscape of the ANCSA regional and village corporations is a key first step in the future success of the project.

This means getting to know Alaska's First People.

While the roughly 140,000 Alaska Natives often work together on land, cultural, and economic issues common to them all, their cultures are as diverse as Alaska is expansive.

There are 11 distinct Alaska Native cultures – Athabascan, Cupik, Eyak, Haida, Inupiaq, Saint Lawrence Island Yupik, Sugpiaq, Tlingit, Tsimshian, Unangax, and Yupik. And within these prominent cultures are groups with their own cultural activities, traditions, and dialects – more than 20 different languages are spoken by Alaska Natives.

While values such as a deep respect for the land, tradition, and subsistence are common to all Alaska Natives, each of the 12 regions, 11 cultures, 229 federally recognized tribes, and 140,000 people are unique.

For mining and mineral exploration companies doing business in Alaska, sitting down with ANCSA regional, village, and business leaders near their projects is an excellent first step to understanding the people and getting to know the area. Moreover, getting to know the people who live closest to where a company is planning to work is a vital step that offers enormous advantages.

Engage early, often

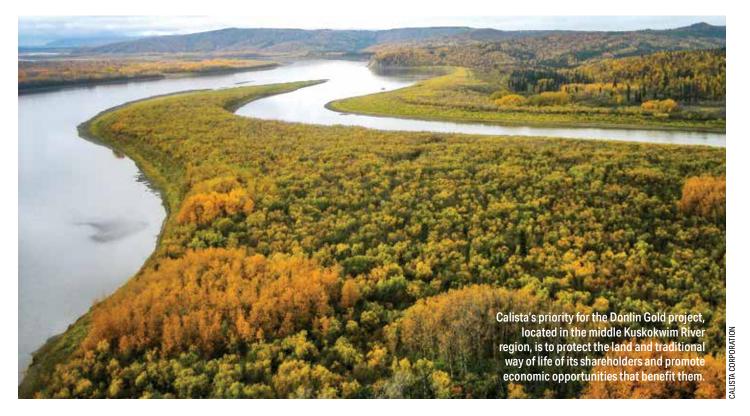
When it comes to getting to know the people around a promising mineral exploration project there are two things to know – engage early and engage often.

Even before a company has advanced a mineral prospect to a point where it is time to organize formal community meetings, talking with the people at the local store, café, or post office can go a long way toward building trust early on.

Basically, if a community member sees helicopters flying around while out fishing or running trapline and does not know what is going on, the locals will feel that their area is being encroached upon, and the people living in the area will speculate on the motives.

While letting a handful of community members know what you are doing on a quick stopover to a promising property may not garner immediate trust, it is better that the local people hear directly from the company than through the "Tundra Telegraph," a term for information passed from individual-to-individual in rural Alaska.

And, with modern social media, information can be telegraphed across a community and throughout a



region very quickly.

Engaging early and often will let the community know what is going on, helping to avoid speculation and mistrust that could make earning a social license to operate much more challenging later on.

In addition to earning that ever-important social license, doing business with and getting to know the local people has much to offer Alaska's mining sector.

One of the primary rewards is recruiting a local workforce.

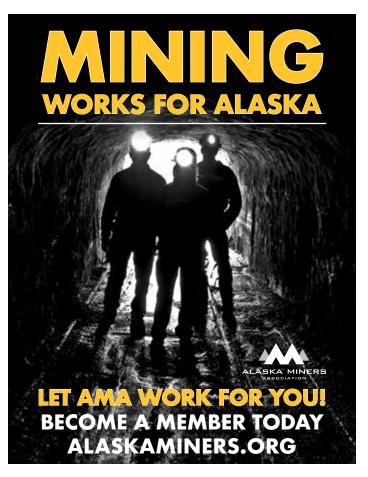
Many of the ANCSA shareholders living in rural Alaska have worked in remote camps, are accustomed to the climate and terrain, and have experience with the positions needed at mineral exploration projects. When you couple this work experience with lifelong and generational knowledge of living and working in the region, hiring local provides many advantages for mining companies.

Mining companies can also learn a lot about the area by sitting down and talking with local residents. Getting to know the "traditional knowledge" can pay dividends down the road.

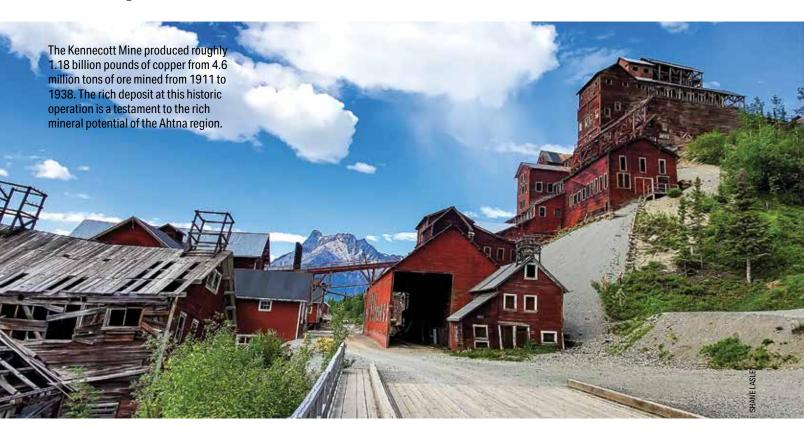
This traditional knowledge could be finding out about a trapline that is in the same area as a potential deposit and being able to talk with the individual early in the process; getting generational insight into weather and wildlife that can assist environmental baseline studies: or even information on outcrops or other geological structures that could lead to new discoveries.

The biggest dividend, however, could be building solid relationships on a foundation of mutual trust and respect.

A foundation that is vital to the success of any mining company planning to do business in any of the 12 ANCSA regions - a fantastically mineral-rich expanse collectively known as Alaska.



Ahtna, Inc.



Ahtna region lies at Alaskan crossroads

Seeks traditional, economic balance at Alaska highway hub

By SHANE LASLEY

Data Mine North

As an Alaska Native Claims Settlement Act regional corporation that is balancing traditional values with economic opportunities across a 26-million-acre picturesque and resource-rich traditional region at the epicenter of Alaska's highway system, Ahtna Inc. lies at a literal and figurative crossroads.

Bordered by the majestic Alaska Range to the north, the equally beautiful Chugach Mountains to the south, the Canadian border to the east, and the Denali National Park to the west, the Ahtna region is renowned for its natural beauty, Copper River salmon, abundant wildlife, and one of the richest lodes of copper ever mined on Earth.

This juxtaposition of natural resource wealth and

beauty at the very crossroads of Alaska's highway system makes the Ahtna region a popular outdoor recreation destination for Alaska's urban-dwellers.

This creates unique opportunities and challenges for

Ahtna as it seeks to balance the development of natural resources on 1.6 million acres for the prosperity of its current shareholders while preserving traditional resources for future generations in an accessible area famed for its copper, salmon, and beauty.

"As a result of this constant influx of outside parties, our people now have to compete more and more for the resources (game, fish,



Joe Bovee

and plant life) located on traditional Ahtna lands," said

the ANCSA corporation.

Ensuring that there are plenty of plants, fish, and wildlife to support the customary and traditional way of life for its people is an important facet of Ahtna's resource management strategy.

"Managing these plants and animals is more than just keeping them intact – it is about keeping them around in large enough qualities so that the shareholders can utilize them," Ahtna Vice President of Land & Resources Joe Bovee told Data Mine North. "Without these plants and animals, or without a large enough population of them, the Ahtna shareholders would not be able to continue to pass down their traditional ways of life."

The highways that bring in visitors from Alaska's largest urban centers also mean that the rich mineral resources in the Ahtna region are close to surface infrastructure, a major advantage compared to the more rural parts of the state.

"The infrastructure in the Ahtna region is both a benefit and a burden," Bovee said. "Land and resource management has to incorporate human resource management as much, or more at times, than the natural resource management side."

To enhance human and natural resource management opportunities, seven of the eight Ahtna ANCSA Village corporations merged with the regional corporation in 1980.

The consolidated Ahtna lands department would consider an arrangement that allows a reputable mining company or a consortium the exclusive right to carry out reconnaissance exploration across all Ahtna lands, with the option to select specific tracts of land for lease and detailed exploration and development.

Keeping in mind that maintaining cultural and traditional land uses is a No. 1 priority, Bovee said, "Ahtna is supportive of responsible resource development, including mineral extraction."

Mineral-rich, accessible

Home to the fantastically rich deposits of copper that provided ore for the historic Kennecott Mine, the Ahtna region covers an area roughly the size of Ohio that many consider to be among the richest on Earth when it comes to mineral potential.

"In the previous 100-years the Ahtna region has produced over six million tons of copper; one million ounces of gold; and nine million ounces of silver," Bovee said.

Much of this metal came from Kennecott, one of the richest and highest-grade lodes of copper ever to be mined.

According to historical production records, the Kennecott Mine produced roughly 1.18 billion pounds of copper from 4.6 million tons of ore mined from three deposits – Bonanza, Jumbo, and Mother Lode.

This means that the average grade of the ore mined at Kennecott over three decades starting in 1909 averaged 13% copper, or more than a pound of copper for every eight pounds of ore mined.

This incredibly high-grade store of copper attracted J. P. Morgan and Simon Guggenheim, among the wealthiest businessmen of the day, and supported the construction of a 196-mile railway and new steamship company to transport ore from the remote Alaska operation to world markets.

Kennecott operations reported more than \$200 million in gross revenues from the copper, silver, and gold mined there and a net profit greater than \$100 million. At today's prices, the copper alone would be worth more than \$4.2 billion.

While Kennecott Mine is now a national landmark within the Wrangell-St. Elias National Park and Preserve, the world-class copper deposits mined there demonstrate the rich mineral potential of the Ahtna region.

In addition to copper, gold, and silver, the Ahtna region is one of the most prospective areas of Alaska for nickel and platinum group elements.

The U.S. Bureau of Land Management has identified 55 mineral occurrences on or near Ahtna lands.

The most extensive assessment of this potential was a reconnaissance program carried out in the 1970s. While cursory, this exploration identified six main mineral belts running across the Ahtna region.

"Ahtna believes its lands should be highly rated on the global scale of exploration opportunities," the ANCSA corporation said.

Partially due to the long process of transferring the full 1.77 million acres of lands Ahtna has selected under ANCSA, much of this world-class mineral potential remains vastly underexplored.

"In short, there are many large blocks of Ahtna lands across entire mineral belts waiting to be explored," said Bovee.

And these mineral belts cut across the hub of Alaska's road system, with the spokes extending to Anchorage, Fairbanks, Delta Junction, Tok, and Valdez.

In addition to being at the center of Alaska's highway system, the Ahtna region extends within a few miles of the deep-water port of Valdez to the south and has rail access on its western flank.

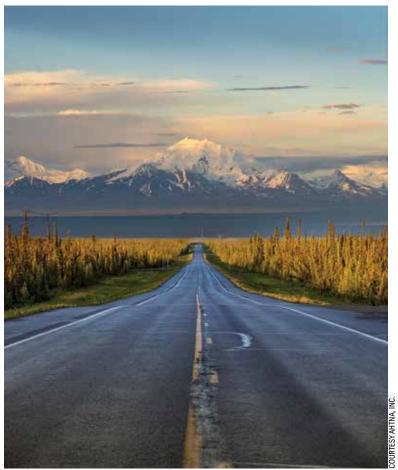
"With 800-miles of highways and secondary roads, electric transmission and distribution lines, Alaska Railroad and access to deep-water ports in the region, Ahtna lands offer great opportunities for exploration and mining companies," the Ahtna vice president of land and resources added.

Alaska's copper center

While the community of Copper Center harkens to the Kennecott Mine era, it is an apt description of the exploration potential of the entire Ahtna region, and the ANCSA corporation owns some prime real estate for discovering new lodes of copper and associated metals.

Ahtna's copper-prospective properties include holdings into the western margins of Wrangell-St. Elias, the park that now encompasses Kennecott.

Berg-MacDougall, Ahtna's closest property to Kennecott, covers roughly 7,360 acres of copper prospects about 30 miles northwest of the historic mine.



Mount Drum dominates the skyline above the Glenn Highway in the heart of the picturesque and resource-rich Ahtna region of Southcentral Alaska.

At least two copper-rich skarn occurrences – Copper Queen and Midas – have been identified on this block of Ahtna-owned property within the boundaries of Wrangell-St. Elias.

The skarn mineralization at Copper Queen, also known as Berg-MacDougall, was explored with roughly 485 feet of underground workings. According to a 1976 report, the deposit shows iron and copper staining over a 100-foot area.

Additional underground workings are found at Midas, about one mile southwest of Copper Queen.

This mine produced at least small quantities of copper, gold, and silver during the Kennecott era.

A sample of skarn material collected from the lower underground workings at Midas contained 2% copper,

0.05% cobalt, 0.6 grams per metric ton gold, and 1.5 g/t silver.

A sample of Midas vein material contained 8 g/t gold, 10 g/t silver, 0.1% copper, and minor molybdenum.

To the west of Berg-MacDougall, Ahtna and Chitina Village Corp., the only independent ANCSA village corporation in the Ahtna region, own other copper-prospective lands that extend some 15 miles into the western flank of Wrangell-St. Elias.

While the belt of rocks that hosts one of the world's highest-grade past-producing copper mines is an attractive exploration target, copper prospects have been identified across the Ahtna region.

One such prospect is Golden Range, found within an emerging Alaskan copper-gold porphyry belt about 100 miles north of Kennecott.

This property in the northeastern corner of the Ahtna region, also known as Ahtell Creek, was previously explored in conjunction with Chisna, a block of adjacent state mining claims.

Reconnaissance exploration completed for Ahtna in the late 1970s identified gold and silver on its Ahtell Creek property.

Corvus Gold Inc., which owned the Chisna claims, cut a deal with Ahtna on Ahtell Creek and explored both properties about a decade ago.

This early-staged exploration found high-grade copper at Green Zone, an area named for the copper-oxide staining observed there. The best grab samples collected from Green Zone include:

- 126.5 g/t gold, 129 g/t silver and 0.4% copper.
- 28.2 g/t gold, 198 g/t silver and 5.1% copper.
- 3 g/t gold, 144 g/t silver and 17.7% copper.

Some geologists familiar with Green Zone believe the copper, gold, and silver found there could be associated with a porphyry, a type of deposit that tends to be lower grade but has the size to support a large-scale mine. More work,

however, is needed to fully understand Golden Range and its potential.

Corvus' exploration also found promising copper-gold mineralization on the adjacent Chisna claims. A lack of funding for exploration companies, however, caused the company to idle its exploration at Golden Range.

"Due to global economic conditions the exploration dwindled but not before providing valuable indications, evidence and the need for more exploration in the area," said Bovee.

In 2015, Millrock Resources Inc. bought the Chisna property on state claims from Corvus.

Copper-rich mineralization similar to what has been identified at Golden Range is found in the same belt of rocks about 100 miles to the west and along Denali

Highway.

Currently, PolarX Ltd. is exploring carbonate-hosted copper and copper- and gold-rich skarn deposits at Alaska Range, a project that combines two historical explora-

» "In the previous 100-years the Ahtna region has produced over six million tons of copper; one million ounces of gold; and nine million ounces of silver." –Ahtna Vice President of Land & Resources Joe Bovee

tion properties known as Caribou Dome and Stellar. In addition to the high-grade deposits, PolarX' work there has identified the potential for much larger porphyry deposits on the state mining claims it owns there.

While Alaska Range is not on Ahtna-owned lands, it shows the breadth of copper mineralization in its region.

The ANCSA corporation does, however, own large blocks of land in a prospective area west of the Alaska Range project. There are several prospects in this northwest corner of the Ahtna region – Revine Creek, Caribou Pass, and Reindeer Hills – but much of the information on these targets is proprietary and would need to be obtained directly from Ahtna.

Platinum-rich terranes

The Ahtna region also happens to be the best place in Alaska to explore for platinum group metals and nickel. This is because Wrangellia, a composite of three geological terranes, all known to host PGMs and associated metals, cuts across the Ahtna region.

The best known of these PGM-nickel prospects is Man, located on state lands in the northern Ahtna region.

Drilling at Eureka Zone, one of several prospects on the Man property, cut 81 meters averaging 0.315 g/t platinum-palladium-gold, 0.17% copper, and 0.25% nickel.

Pure Nickel, the former owner of Man, said that a review of drilling shows that all holes that cut the Eureka zone encountered similar PGM-gold-copper-nickel mineralization along a 4.5-mile trend in the central part of Alpha.

Despite the property's promise, Pure Nickel relinquished the state mining claims covering Man to save money during the recent downturn in mineral exploration markets.

The Peninsular Terrane, which extends across the southern Ahtna Region, is a subsection of the Wrangellia Composite Terrane, also known for its PGM potential.

New Age Metals Inc. recently signed an agreement with Anglo Alaska Gold Corp. to acquire full ownership

of Genesis, a 10,240-acre, drill-ready platinum group metal project in the Peninsular Terrane.

Situated along the Richardson Highway about 75 highway miles north of the deep-water port city of Valdez, Genesis is an under-explored palladium-platinum-nickel-copper property with great infrastructure.

Sampling of one drill-ready reef style target at Sheep Hill on the Genesis property returned up to 2.4 g/t palladium, 2.4 g/t platinum, 0.96% nickel, and 0.58% copper.

The property also hosts a separate style of chromite mineralization containing up to 2.5 g/t palladium and 2.8 g/t platinum.

Despite this surface PGE-copper-nickel mineralization, no drilling has ever been carried out on this project that is less than two miles from a paved highway and an electric transmission line.

Ahtna owns a large block of property immediately west of the Genesis claims and along trend of the PGM-nick-el-copper-chromite mineralization found there.

Attractive exploration arrangement

Ahtna is interested in working with reputable mining or mineral exploration companies to further investigate the rich mineral potential across the 1.77 million acres of land it owns or has selected for ownership.

This includes the potential for an arrangement that provides such a company the exclusive right to carry out additional reconnaissance mineral exploration across wide swaths of Ahtna lands, with the option to lease specific tracts turned up by this surface work for detailed exploration and development.

Ahtna does, however, have certain criteria that it expects to be included in any exploration and option to lease agreement on its lands.

"During all phases of the exploration and actual mining development Ahtna would expect shareholders to be afforded job opportunities at all experience levels, monetary work commitments on the project and incentives to the corporation," Bovee said.

Scholarship contributions, vocational training for shareholders, production royalties, and an option for Ahtna to participate at the feasibility stage of any mine on its lands are among the criteria the regional corporation would like to see in an agreement.

In return, a mining company that demonstrates a respect for the traditional Ahtna resources could get first choice of lands owned by the stakeholders in a very mineral-rich, road-accessible, and under-explored section of Southcentral Alaska.

"For all these reasons – technical, economic, and political – Ahtna lands are attractive exploration targets," the ANCSA regional corporation wrote.

The Aleut Corpration



Aleut's Ring of Fire mineral potential

Aleutian Islands offer metal-rich lodes on the Pacific Rim

By SHANE LASLEY

Data Mine North

Aleut Corp. is committed to promoting economic opportunities for its more than 4,000 shareholders while preserving the traditional culture and values developed from living in a ruggedly beautiful stretch of Alaska.

From the community of Sand Point on the Alaska Peninsula to Attu near the western end of 167 named Aleutian Islands extending more than 1,000 miles off Southwest Alaska, the Aleut Corp. region forms a boundary between the Pacific Ocean and Bering Sea. This geologically young island arc is part of the Pacific Ring of Fire, a tectonically active and mineral-rich belt that runs from the southern tip of South America to New Zealand.

Despite the more than 40 known volcanoes and

frequent earthquakes spurred by the Pacific Ocean plate diving under the North American plate, coupled with being the birthplace of some of the wildest storms known to man, this harsh and beautiful stretch of Alaska has been home to Aleut people for thousands of years.

This region is also home to an oft-overlooked chapter of Alaska's mining history – Apollo, among the first hardrock gold mines in the state.

In addition to high-grade epithermal gold deposits such as those historically mined at Apollo, the dynamic geology that formed the Alaska Peninsula and the Aleutian Islands is highly prospective for other types of mineral occurrences, such as the large porphyry systems that are an important source of the world's copper supply.

Rose Ragsdale, a contributing journalist for North of 60 Mining News, witnessed the rugged beauty of Unga

Island and what remains of the legendary Apollo Mine during a visit to the nearby community of Sand Point in 2002.

"Unga Island offers breathtaking natural scenery, but abandoned buildings scattered across the lower elevations of a 170-square-mile expanse of sandy beaches, grasslands and rolling hills flanked by rugged cliffs give mute testament to the island's rich gold and coal mining history," Ragsdale reflected. "It is not surprising that this chillingly beautiful, but remote part of the world offers a potential treasure of sizable mineral deposits."

Aleut ingenuity and skills

It was not the gold, but the bounty from the sea, that drew the forebearers of Aleut Corp. shareholders to this chillingly beautiful chain of islands that stretch nearly to Russia's Kamchatka Peninsula.

To survive for more than nine millennia in this rugged environment required the Aleut people to have the best clothing, dwellings, transportation, and food. The ability to make highly effective clothing, boats, and other essen-

"It is not surprising that this chillingly beautiful, but remote part of the world offers a potential treasure of sizable mineral deposits." –Rose Ragsdale

tials out of the seemingly limited materials the Aleutian region has to offer, speaks to the ingenuity, resourcefulness, and skills of the Aleut people.

While made of different materials, modern kayaks and top-end rain gear borrow from the designs Aleut people have been using for millennia.

Kamleikas, "rain gear" Aleut women made from the intestines of sea mammals, allowed hunters to stay warm and dry while harvesting the sea lion, whale, salmon, halibut, cod, crab, and shrimp that is the foundation of Aleut diet.

To travel for days out in the rough seas this part of Alaska is renowned for, these Aleut hunters used baidarka, highly maneuverable boats that are considered the inspiration to modern kayaks.

"Historically, it is recorded that if the Aleut paddler was appropriately outfitted with a kamleika in a properly constructed baidarka, they could roll completely over in the sea and become upright again without being tossed from the baidarka," Aleut Corp. penned on its website.

Aleut women were also expert and artful grass weavers that could weave baskets so tight that they could hold water. In addition to Aleut baskets, these craftswomen wove mitts, shoes, sleep mats and wall dividers.

While the conveniences of modern homes, clothing, and technologies make living on the Aleutian Islands easier today, Aleut Corp. shareholders continue to pass down the traditional skills, ingenuity, culture, and values that served their ancestors living on the Aleutian Islands well for at least 9,000 years.

Alaska's first real gold mine

While information on the discovery of gold in the Aleut region is scarce, by 1886 the Apollo Mine was in operation there. Not only does this make Apollo one of the first commercial hardrock gold mines in Alaska, this Unga Island operation was in production before the Fortymile discovery that sparked the rush to mine placer gold in the state.

In a 1914 book titled "Alaska, its meaning to the world, its resources, its opportunities," historian Charles Richard Tuttle wrote, "From available data, it may be stated that the earliest discoveries of gold in Alaska, in anything like paying quantities, were made in widely scattered locations, and were quartz lodes, not placers. The Apollo Mine on Unga Island, off the western shores of Alaska, probably was the first of these discoveries."

According to historical reports, the Apollo and adjacent Sitka mines produced roughly 150,000 ounces of gold from high-grade epithermal veins before they were shuttered in 1922.

In recent years, Heliostar Metals Ltd. has been exploring a nearly 100-square-mile property that blankets two high-grade gold trends - Apollo-Sitka and Shumagin – that each cut roughly six miles across Unga Island, which is just south of the Alaska Peninsula.

Apollo-Sitka hosts the historic Apollo Mine, and Shumagin is a parallel high-grade gold trend about 2,000 meters to the northwest.

SH-1, a deposit outlined along the Shumagin trend, hosts 866,015 metric tons of inferred resource averaging





13.8 grams per metric ton (384,318 ounces) gold and 35.4 g/t (986,321 oz) silver.

Aleut Corp., which received roughly 66,000 acres of surface lands and 1.57 million acres of subsurface estate under the Alaska Native Claims Settlement Act (ANCSA), owns the mineral rights to most of Unga. Two ANCSA village corporations, Shumagin and Unga, own much of the surface estate on this island.

Heliostar has agreements that consolidate the Aleut estates with patented mining claims over the historic Apollo Mine and adjacent state of Alaska mining claims.

Pacific Rim copper Pyramid

Aleut Corp. also owns the mineral rights to Pyramid, a large porphyry copper-gold-molybdenum deposit about 25 miles north of Sand Point.

Recognizing the mineral potential of Pyramid in the 1970s, Aleut Corp. selected this land for subsurface ownership under ANCSA. The Shumagin and Tanadgusix village corporations each own parts of the surface lands covering this large copper deposit.

Full Metal Minerals, which optioned Pyramid from the ANCSA regional and village corporations in 2007, was the first company to carry out systematic exploration across this property.

CopperBank Resources Corp., which acquired the property in 2014, carried forward the exploration started by Full Metal.

By 2018, the exploration carried out by CopperBank and its predecessors had culminated into 153.4 million metric tons of inferred resource averaging 0.37% (1.26 billion pounds) copper, 0.09 g/t (457,000 oz) gold, and 0.02% (70 million lb) molybdenum.

This deposit of the copper increasingly needed for the

global transition to electric vehicles and renewable energy is located about 2.5 miles from ice-free deep tidewater on the Pacific Rim, making it ideal for shipping ore to Asian and North American markets.

In addition to the potential to expanding Pyramid, CopperBank investigated San Diego Bay, a promising but much earlier stage copper target on Aleut Corp. land about six miles to the east.

A 15-square-mile redstained anomaly from the pervasive alteration there indicates the potential of another large porphyry

system near or potentially connecting to Pyramid.

Limited exploration completed has turned up some interesting results at San Diego Bay, including rock samples with grades as high as 16% copper and more than one g/t gold. This work included surface work carried out by CopperBank in 2017.

Despite the massive potential of the readily accessible copper deposit and target, CopperBank terminated its option on the Pyramid and San Diego Bay copper projects in 2020.

Modern enterprises, continued tradition

Partnerships on mineral-rich lands such as Unga, Pyramid, and San Diego Bay is a way for Aleut Corp. to achieve its commitment to promote economic, cultural, and social growth for its shareholders.

The ANCSA corporation and its subsidiaries also provide information technology and telecommunication services; bulk fuel sales, operations, and storages; environmental testing and remediation; water compliance monitoring; industrial instrumentation for control and piping systems; real estate management; and government contracting.

These enterprises provide the economic means for Aleut people to enjoy the conveniences of modern dwellings and clothing to protect them from the storms that stir up on this chain of ruggedly beautiful Ring of Fire islands that form the boundary of the Pacific Ocean and the Bering Sea.

All the while, this close-knit group of extraordinarily resourceful people can hold fast to their culture and values by teaching past and present Aleut customs to their descendants so that they can pass these traditions down to the following generations.

Arctic Slope Regional Corporation



More than oil across **Arctic Slope region**

ASRC seeks partners to explore more solid mineral potential

By SHANE LASLEY

Mining News

Vast petroleum reserves underlying what is now the Arctic Slope Regional Corp. (ASRC) region, and the need to build a pipeline to deliver this oil to an ice-free port 800 miles to the south and then to global markets that lie beyond, raised the urgency to settle aboriginal land claims in Alaska. This need for a resolution before a pipeline corridor that would bisect the state prompted lawmakers in Washington, D.C. to enact the Alaska Native Claims Settlement Act, a revolutionary aboriginal land claims settlement commonly known as ANCSA.

Signed into law by U.S. President Richard Nixon in 1971, ANCSA involved a unique plan to organize Alaska Natives into 12 regional corporations, with each of these corporations having its own geographical regions based

largely on heritage and shared interests.

The ASRC region covers roughly 95,000 square miles of Alaska's entire North Slope, a vast expanse nearly the size of Oregon that extends from the Brooks Range north to the Arctic Ocean and from the Yukon border west to Point Hope – a vast and treeless arctic area settled by the Iñupiat ancestors of the approximately 13,000 current ASRC shareholders more than 10,000 years ago.

The hard work, perseverance, strength, and ingenuity passed from these earliest adventurers that trekked into this new but foreboding region laid a foundation for the Arctic Slope Iñupiat to build ASRC into the largest Alaska-owned company.

"Iñupiag know hard work at a cultural level. In our faces, you can see the strength, determination and inventiveness that flows from the very roots of our Iñupiaq culture," the ANCSA corporation wrote.

While the rich oil reserves lying under the Arctic Slope region, particularly under the roughly 5 million acres of lands selected for ownership by ASRC, is the primary resource that helped fuel the Iñupiat-owned corporation's success, the region also covers areas highly prospective for zinc, lead, silver, molybdenum, tungsten, and coal.

Early challenges

While ANCSA is inexorably tied to the rich oil and gas discovered under the ASRC region, this did not translate to instant financial success for the corporation.

Being a fledgling corporation vying for some of the richest petroleum real estate on Earth created early challenges, not only from multinational oil companies wanting to claim their own slice of the vast oil reserves but also from large swaths of the Arctic Slope being placed off-limits due to national interests.

For example, ASRC was prevented from selecting lands in the National Petroleum Reserve in Alaska (NPR-A), the nation's largest single block of public land, or the Arctic National Wildlife Refuge (ANWR), another large block of public land at the east end of the North Slope.

Established by President Warren Harding in 1923, the roughly 37,000-square-mile NPR-A was set aside as an emergency oil supply for the U.S. Navy. This West Virginia-sized track of land was transferred to the Bureau of Land Management in 1976.

On the other hand, ANWR was designated as a wilderness protection area in 1960, a designation that was formalized as a wilderness reserve with the passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980.

These federal set-asides took nearly half of the region off the table for land selections and ASRC had limited information about available lands in the other areas.

Despite these early challenges, by 1976 ASRC had selected much of its lands and received its initial 3-million-acre conveyance, making it the first Alaskan Native regional corporation to gain title to lands under ANCSA.

Ingenious solution

While gaining land ownership on the North Slope and subsequently signing oil and gas leases with some of the largest oil companies of the day – Union Oil, Amoco, Texaco, and Chevron – provided critical revenue for the fledgling ASRC and its subsidiaries, the Arctic Slope Native corporation still had a tough financial road ahead.

As the regional corporations were going about implementing ANCSA, a major dispute arose over how to interpret ANCSA Section 7(i), a way to bring balance to regional and village corporations by sharing of net revenues from resource development on ANCSA lands.

In 1982, a 7(i) settlement agreement was signed, which set out in very specific terms how resource revenues would be shared among all 12 regional corporations.

ANCSA Section 7(i) requires regional corporations to distribute 70% of net revenues from resource development on ANCSA land among the other regional corporations. In turn, Section 7(j) requires that half of the Section 7(i) payments received are distributed to the respective village corporations within each of the ANCSA regions.

This put ASRC in the position of owing \$7 million in back 7(i) payments to the other regions, a significant amount for a corporation trying to get on its feet.

Faced with a financial crisis, the leaders of ASRC came up with an ingenious solution – trade surface estate it owned within the Gates of the Arctic National Park for subsurface mineral rights under the village of Kaktovik and within ANWR.

The Kaktovik Iñupiat Corp. (KIC), a village corporation, owns the surface rights to this 92,000-acre land package.

According to the U.S. Geological Survey, the non-wilderness area of ANWR's Coastal Plain is believed to hold a mean estimate of 10.6 billion barrels of recoverable oil.

With the 2017 Congressional legislation approving responsible energy development within the 1002 Area of ANWR and the January leases within a small portion of the coastal plain, it looked as if ASRC and KIC would benefit from the foresight of the land exchange.

The Biden administration, however, put a freeze on the ANWR oil leases in June.

"The Biden administration's decision to stall this progress not only reneges on promises made to producers that took part in January's oil lease sale but also does not take into account the benefits to our region," ASRC penned in a June 1 statement. "We are disheartened by this decision, as opening the 1002 Area to oil and gas development is a valuable way to bring jobs and opportunity – like health clinics, support for our schools and other benefits – to our communities."

And any benefits from oil drawn from the ANWR lands owned by ASRC and KIC would flow across Alaska as the other ANCSA regions received their share under Section 7(i).

More than petroleum

While oil and gas are the primary drivers for ASRC, the Arctic Slope region also has hardrock mineral potential, especially at the west end just north of the world-class Red Dog zinc mine.

On lands owned by NANA Corp., the ANCSA corporation for Alaska's Northwest Arctic, Red Dog produces roughly 1.3 billion pounds of zinc per year, or about 5 percent of the world's new supply of the galvanizing metal, along with healthy supplies of lead, silver, and germanium.

Kuna Formation, a package of black shale and chert that hosts the Red Dog deposits, extends north into the ASRC region. The Arctic Slope ANCSA corporation said eight areas based on geological and geochemical merit have been recognized within the ASRC region, which is only about 10 miles north of the Red Dog Mine.

Geochemically anomalous zones in the ASRC region exhibit high concentrations of

zinc, lead, silver, and pathfinder elements such as barite, cadmium, manganese, vanadium, and nickel.

Though very little exploration has been carried out in this area, several occurrences of disseminated sulfide mineralization have already been discovered.

ASRC seeks a mining company to explore, develop, and mine deposits, which may be located on its lands.

World's coal storehouse

The western half of the ASRC region also hosts enormous stores of high-quality coal.

Northern Alaska Coal Province, which extends east across 300 miles of the ASRC region from the Chukchi Sea, hosts an estimated four trillion tons of high-quality bituminous and subbituminous coal. This accounts for roughly 11% of the world's known coal resource and about 33% of the U.S. resource.

Exploration by a large mining company working in partnership with ASRC identified approximately 2 billion tons of high-rank bituminous coal resource in the Western Arctic.

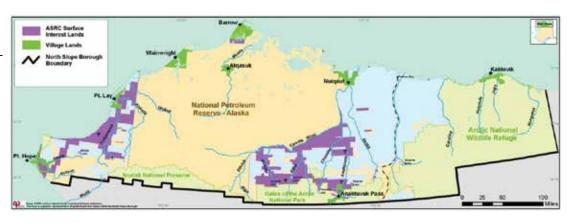
ASRC said that exploration thus far has concentrated its studies on a single coal deposit located only six miles from tidewater on the Chukchi Sea.

The Arctic Slope corporation said drilling has upgraded more than 100 million tons of coal in the Western Arctic Coal deposit to reserves for mining and estimates another 50 to 100 million tons could be added to the reserves of this single near-coast deposit.

Not only is the Western Arctic Coal deposit worldclass in size, but the coal there is premium quality and ultra-low sulfur. According to ASRC, Western Arctic Coal averages 0.23% sulfur, 3% moisture, 7% ash and has a heating value in excess of 12,000 British thermal units (BTU) per pound.

This provides an environmentally preferred alternative to lower quality coals presently utilized for power generation. With many Pacific Rim nations moving to stricter environmental standards for coal-generated power, using Western Arctic Coal as a blend would reduce sulfur dioxide emissions.

ASRC said early results from studies of the economic



feasibility of mining Western Arctic coal are encouraging and the ANCSA corporation is seeking a mining company to explore and develop its coal deposits.

Solid mineral potential

The Arctic Slope region is also believed to host one of the largest deposits of tungsten in the U.S. Because it is inside ANWR, however, there is little chance this critical mineral occurrence known as Bear Mountain will be developed into a mine in the near future.

During visits to Bear Mountain in the 1980s, U.S. Bureau of Mine geologists James Barker and R.C. Swainbank identified a 100-acre area of surface mineralization indicative of a large porphyritic molybdenum-tungsten deposit.

Analysis of 20 soil and 36 rock samples collected during 1985 returned abundant tungsten and molybdenum along with lesser amounts of niobium.

Soil samples collected over roughly 75-acres returned tungsten values of more than 500 parts per million wolframite, with the best samples containing 5,000 ppm of this tungsten mineral.

"I believe Bear Mountain to be likely the most important tungsten deposit in the U.S.," Barker, who has extensively studied Alaska's critical mineral potential, told Mining News.

As important a tungsten resource as Bear Mountain is, its far northeast Alaska location inside ANWR will likely prevent its development.

"It's a shame that mineral evaluations aren't done before we place an area off-limits," Barker reflected.

While Bear Mountain may be off-limits, an extensive network of strategically located gravel deposits owned by ASRC are not. Found near villages, petroleum development, and high potential resource areas across the Arctic Slope, these deposits offer building materials vital to roads, airstrips, pads, and other infrastructure.

So, while Alaska's North Slope oil and gas played a central role in settling Alaska Native land claims and has been a major economic driver for ASRC, more solid minerals have the potential to become increasingly important to the future of the region and its people.

ANCSA 7(i)



Sharing the hunt with ANCSA Section 7(i)

Based on tradition, profit sharing ensures ANCSA corp survival

By SHANE LASLEY

Data Mine North

From the wide distribution of the massive resources provided by a bowhead whale harvested in the icy waters of the Beaufort Sea to sharing the catch from successful fishing in the Gulf of Alaska, sharing the bounty nature has to offer is among the most important core values of Alaska Natives across the state.

This millennia-long tradition of sharing the hunt has been enshrined in the sections 7(i) and 7(j) provisions of the Alaska Native Claims Settlement Act.

From the early discussions about settling Alaska Native land claims, there was recognition that some regions were richer in natural resources and therefore had more potential for economic prosperity.

While this perceived natural resource disparity was partially addressed when calculating how much land

was conveyed to each of the 12 regions established under ANCSA and how much of the \$962.5 million in cash compensation for lost lands was distributed, various Alaska Native groups felt there needed to be an added

mechanism for sharing the wealth from the harvest of natural resources.

This method came in the form of sections 7(i) and 7(j), which were amended in 1982.

ANCSA Section 7(i) requires regional corporations to contribute 70% of net revenues from resource development on ANCSA lands into a pool that is distributed among the 12 ANCSA regional corporations. In turn, Section 7(j) requires



Andrew Guy

that half of the Section 7(i) payments received are distributed to the respective village corporations within

Tectonic Metals Celebrates ANCSA's 50th Anniversary

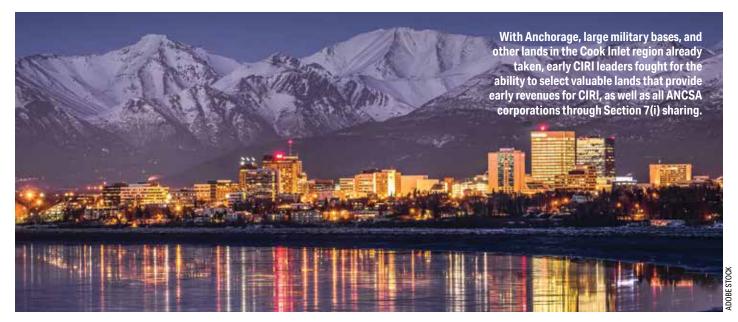
"50 years ago, the Alaska Native Claims Settlement Act, known as ANCSA, a revolutionary, first of its kind agreement was signed. Since then, ANCSA has enabled several game-changing social and environmental stewardship agreements and programs between the industry and Alaskan natives, leading to meaningful positive change. At Tectonic Metals, we are humbled to have contributed towards ANCSA and the values it represents through our landmark partnership with Doyon, Limited, which prioritizes the social and economic wellbeing of the communities we operate in."

- Tony Reda, President, Founder and CEO, Tectonic Metals Inc.

A Partnership Empowering the Local Community

- 2018 Doyon makes a strategic investment into Tectonic Metals, becoming Tectonic's largest single shareholder.
- Innovative Discovery-to-Production lease agreements align the interests of all parties, reduce risk, and streamline the process of advancing a project from discovery through to the development of a mine, should that occur.
- 20,000 Doyon, Limited shareholders benefit through the Tectonic-Doyon partnership.
- Tectonic Metals supports the Doyon
 Foundation's mission to provide
 educational, career and cultural
 opportunities to community members
 through scholarships, placing interns and
 advancing traditional Native knowledge.





each of the ANCSA regions.

The "leveling effect" of 7(i) and 7(j) creates economic activity that otherwise would not occur in recipient regions and provides village corporations with vital funding.

Regional and village ANCSA corporations use 7(i) and 7(j) revenues to fund educational programs and scholarships; programs for elders; business investments; shareholder dividends; and corporate expenses such as overhead and taxes.

Over the years, every ANCSA regional corporation has had periods when it received more 7(i) payments than it paid out, so all 12 regions and their shareholders have benefited from 7(i) and 7(j) income during slim years.

It is estimated that roughly \$4 billion has been paid into the Section 7(i) pool over the years.

Ingenious solution

While the Arctic Slope Regional Corporation has been a major Section 7(i) contributor over the decades due to the rich stores of oil and gas in its region that spans Alaska's entire North Slope, the ANCSA sharing mechanism threatened to bankrupt ASRC early on.

Up until the Section 7(i) settlement agreement was amended to ANCSA, there was an ongoing dispute of how profits were to be shared.

Settling on putting 70% of revenues into a pool to be shared amongst the regional corporations put ASRC in the position of owing \$7 million in back 7(i) payments, a significant amount for a corporation trying to get on its feet.

Faced with a financial crisis, the leaders of ASRC came up with an ingenious solution – trade surface estate it owned within the Gates of the Arctic National Park for subsurface mineral rights under the village of Kaktovik and within the Alaska National Wildlife Refuge (ANWR).

The Kaktovik Iñupiat Corp. (KIC), a village corporation, owns the surface rights to this 92,000-acre land package.

With the Kaktovik land exchange, ASRC was able to generate several million dollars by entering into explor-

atory agreements with oil companies on the new land.

This ingenious solution allowed ASRC to pay its Section 7(I) obligations and helped catapult the northernmost ANCSA regional corporation to the top of Alaska-owned businesses.

During 2019 ASRC generated \$3.8 billion in revenue, enough to place it as the top Alaska company, according to Alaska Business' 2020 Top 49ers, which ranks the top Alaskan businesses by revenue.

An early 7(i) contributor

Cook Inlet Regional Corp., better known as CIRI, played a pivotal role in helping get fellow ANCSA corporations on their feet with early contributions into the Section 7(i) pool.

"We are not the biggest 7(i) distributor, but we were the earliest, and a significant contributor to allowing corporations to actually stay in existence," said Margie Brown, who worked in CIRI's land department from 1976 to 1995 and served as the corporation's president and CEO from 2005 to 2012.

The ability to flow cash into the revenue sharing pool early on was largely due to some strategic land selections in oil and gas-rich areas of Cook Inlet, along with the tenacity and savvy of CIRI's early leadership that ensured the ANCSA corporation received its fair share of royalties from oil and gas production from its lands.

"Because CIRI fought for its rightful entitlement, the company was able to select valuable lands that would, over time, bring in hundreds of millions of dollars, providing CIRI a strong financial foundation early on," said Brown,

That strong financial foundation during CIRI's early years helped to ensure the solvency of many of the other Alaska Native regional and village corporations around the state, thanks to special provisions of ANCSA known as sections 7(i) and 7(j).

In addition to giving their fellow ANCSA corporations an early financial boost, the early revenues from oil and gas fields in the Cook Inlet area provided a foundation for CIRI's success.

"Growing a company organically is a slow slog, a hard process," Brown said. "But with oil and gas revenues coming in so early, even though we were sending a lot out by way of 7(i) distributions, the amount we kept was significant, and we could use those revenues, and we did use those for other investments, whether it was into radio and T.V. stations or real estate—they provided the underpinning that allowed us to go out and do business in other arenas much earlier than others were able to do."

Significant Red Dog contributions

When it comes to 7(i) proceeds from mining, NANA Corp. has been by far the largest contributor.

Of the approximately \$2.4 billion in proceeds NANA received from the Red Dog zinc mine on its lands through 2020, the Northwest Alaska Native corporation paid roughly \$1.6 billion in 7(i) payments to the other ANCSA corporations.

"That means we have a significant impact on the rest of the state and the other Alaska Native communities," NANA Vice President of Lands Liz Cravalho informed Alaska lawmakers.

NANA President and CEO Wayne Westlake told Data Mine North that sharing is among the core values of the Iñupiaq people, and he is proud of NANA's ability to share the bounty from Red Dog to the other corporations.

Calista Corp., which aspires to be another major 7(i) contributor from the proceeds of mining the world-class Donlin Gold deposit on its lands in the Yukon-Kuskok-

wim region of Southwest Alaska, appreciates the shared bounty from Red Dog and other natural resource projects across Alaska.

"Royalty sharing has historically kept many Alaska" Native corporations from going bankrupt," said Calista President and CEO Andrew Guy. "To this day, Red Dog payments are a significant source of income for regional and village corporations."

Calista hopes that mining the 39-million-ounce Donlin Gold deposit will provide jobs and economic benefits that will ensure prosperity for its shareholders while also sharing the wealth with the other ANCSA regions.

"Donlin Gold royalties would similarly be shared with other Native corporations for the benefit of their shareholders," the Calista president inked in an Oct. 17 editorial.

Calista says this sharing aligns with its core traditional value of its people to work together as a village to harvest what is needed each season.

This value of sharing the harvest is deeply ingrained in the culture of Alaska Native people across the state who have not only survived but thrived in a land that can sometimes be harsh and foreboding.

Or, as Shaun Johnson, an 11th grader from Kiana wrote, "In the past, during times of starvation, it was important that everyone work together and share limited foods. If this value wasn't held by our people, the culture would have died generations ago."

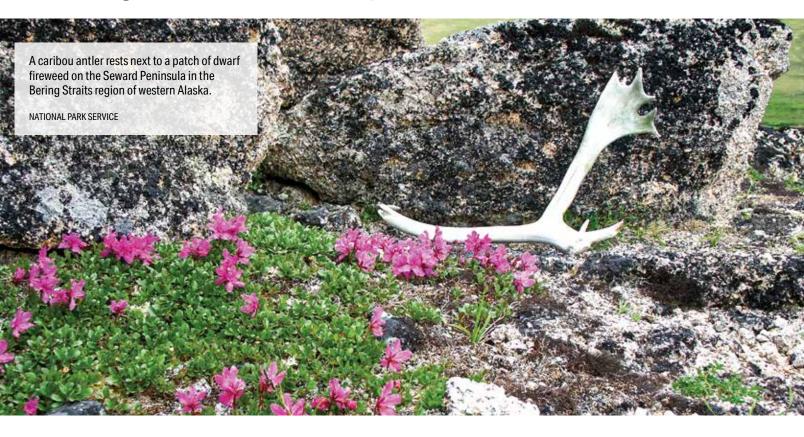
It may have been a similar story for many regional and village corporations if sections 7(i) and 7(j) sharing had not been enshrined in ANCSA.

PUTTING ALASKANS FIRST

Alaska Native Claims Settlement Act - 50th Anniversary



Bering Straits Native Corporation



Bering Straits lies on the edge of tomorrow

BSNC region covers bridge to past, gateway to Arctic future

By SHANE LASLEY

Data Mine North

Home of the famed golden beaches of Nome that has captured the imagination of millions over the past 120 years, the Bering Straits Native Corporation (BSNC) region covers the Seward Peninsula and coastal lands arcing around the eastern and southern coast of the Norton Sound in the far western reaches of Alaska.

While this region may be 300 miles beyond North America's highway system, it has served as a crossroads for human activity for at least 15 millennia and will continue to do so well into the future. This is because the traditional homeland of BSNC shareholders lies at the eastern extent of the Beringian land bridge that provided passage for human migration east into the Americas and the Pacific gateway to the Arctic.

This epicenter of human activity gained world renown when word got out that gold was discovered on the shores of the Seward Peninsula in 1898, sparking the Nome Gold Rush. Today, miners still recover marine placer gold just off Nome's beaches.

The hardrock source for most of the more than 7 million ounces of the placer gold recovered from the beaches and streams in the Bering Straits region, however, has yet to be mined. In addition, this stretch of far western Alaska is rich in a wide variety of minerals that are becoming increasingly critical to modern life in the United States.



Gail Schubert

As such, much of the roughly 2.2 million acres of land conveyed to BSNC under the Alaska

Native Claims Settlement Act (ANCSA) was selected for its gold, tin, and other mineral potential.

BSNC sees the responsible exploration and mining of the rich mineral wealth in its region as an opportunity to strengthen the economy and help advance other prospects in the area, including development at Point Spencer, a natural deep-water port of refuge lying just south of Bering Strait.

Critical juncture

More than 15,000 years before gold, tin and other minerals drew fortune seekers to Nome, some of the first people to step foot on the North American continent migrated east across a land bridge between Eastern Eurasia and Northwest North America exposed by lower oceans during the Ice Age.

While the ancestors of many of North America's First Nation people are believed to have trekked across this bridge as they ventured east and then south, the forebears of the nearly 8,000 Inupiat and Yup'ik shareholders of BSNC arrived later and remained in this important crossroads area.

"We have thrived and survived in the Arctic for thousands of years," Bering Straits Native Corp. President and CEO Gail Schubert said during a presentation at the 2019 Arctic Encounter Symposium.

Today, Bering Straits, a narrow ocean passage that serves as the marine gateway to the Arctic, lies between the BSNC region and Eurasia.

"It's a mere 55 miles across from the U.S. side to Russia in what is commonly referenced as 'the choke point," Schubert explained. "We are located at a critical juncture in the Bering Straits.

This "choke point" provides Pacific Ocean access to two major Arctic shipping lanes that are becoming increasingly important as Earth warms - the Northern Sea Route, which skirts the north shores of Russia en route to Europe, and the Northwest Passage, which heads east around Alaska and Canada before reaching the Atlantic Ocean near Greenland.

BSNC is critically aware that ships taking either route must cruise past its shores - raising both security concerns and potential economic opportunities for this region.

The ANCSA corporation and the city of Nome are advocating for a dual-port approach to infrastructure in the Bering Strait region, a port at the city of Nome and a second on BSNC and state lands at Port Clarence.

After studying more than a dozen locations, the U.S. Army Corps of Engineers and Alaska Department of Transportation identified these as the two best places to develop a deep-sea port to serve as a base to protect national interests, support ship traffic, and increase economic development in the Arctic. Considering the expected increase in Bering Straits traffic, BSNC and

Nome see the need for modern port facilities at both locations.

BSNC says private companies have expressed interest in partnering on the development of infrastructure on its lands at Point Spencer. Port Clarence, a 13-mile-wide basin with waters in excess of 35 feet deep, is formed by the south to north trending Point Spencer. A commercial port here could provide safe anchorage for the expected increase in ships passing through the Bering Strait, as well as a base of operations associated with national security interests.

A historic milestone toward this goal was reached with the Bureau of Land Management's 2020 transfer of more than 2,000 acres of ANCSA land at Point Spencer to BSNC.

This lands conveyance allows for public and private sector infrastructure development that will benefit the U.S.

>> "I believe that Port Clarence is going to positively contribute to sustainable economic growth in the BSNC region." -Bering Straits Native Corporation CEO Gail Schubert

"As our country prepares to defend our shores in the Arctic, we hope that this port will once again stand as a beacon of safety and security in service to our great nation," said Schubert.

In addition to serving as a strategic outpost at this gateway to the Arctic and a safe harbor at either end of the Northwest Passage between the Pacific and Atlantic oceans, Port Clarence also happens to be only about 25 miles from a world-class deposit of the graphite used in the lithium-ion batteries powering the rapid transition to low-carbon energy and transportation. While this critical mineral project, Graphite Creek, is located on state lands, it could provide an anchor customer for a port on BSNC land at Spenser Point.

Graphite Creek hosts 10.95 million metric tons of measured and indicated resources averaging 7.8% (850,534 metric tons) graphite; plus 91.9 million metric tons of inferred resource averaging 8% (7.3 million metric tons) graphite. While already a globally significant supply of this critical ingredient to lithium-ion batteries, this deposit only considers a small fraction of the thick lenses of graphite surfacing along an 11-milelong stretch of the Kigluaik Mountains on the Seward Peninsula.

Graphite One Inc. is currently working on environmental, engineering, and other work needed for a pre-feasibility study that will provide details of a potential mine at Graphite Creek. If the economics and other parameters are positive, the company hopes to advance the project to a final feasibility study, permitting, and development.

Any mine developed at Graphite Creek would need a port capable of shipping the graphite to global markets increasingly demanding this material for the batteries powering electric vehicles and storing wind and solar-generated electricity.

Edge of tomorrow

Not only is the BSNC region America's Pacific Ocean gateway to the Arctic, it is as far west as you can travel before crossing the International Date Line.

This strategic geographic position shapes the corporate vision of BSNC – "On the edge of tomorrow, we cast our vision to the future. We strive to empower our people as leaders in the development and protection of the Arctic region."

With its vision cast forward and north, the Bering Straits regional corporation's mission is focused on improving the lives of its people through economic development in a way that protects its lands and preserves the diverse heritage and lifestyle of its Inupiaq, Siberian Yupik, and Central Yup'ik shareholders.

While the discovery of gold on the beaches of Nome and the cash economy that followed has brought significant changes to the Seward Peninsula over the past 120 years, living off the land remains essential to the livelihood and identity of the First People of the BSNC region.

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Finding a balance between providing its shareholders the benefits of a modern cash economy and ensuring their ability to maintain the traditional subsistence way of life plays a central role in BSNC's business and land use decisions.

"Bering Straits is ... supporting the subsistence lifestyle by being very diligent and careful with the lands that have been conveyed to us through the Alaska Native Claims Settlement Act," said BSNC Vice President of Nome Operations Larry Pederson.

These BSNC lands include roughly 2.1 million acres of subsurface estate underlying the surface estate selected by the 17 ANCSA Village corporations in the Bering Straits region. These lands were selected to protect subsistence and traditional use areas; coastal access and sealing areas; and potential future uses.

In addition to the subsurface rights under village lands, BSNC also owns approximately 145,000 acres of surface and subsurface lands selected for their mineral or other natural resource potential.

"While other regions in the state have timber or oil reserves, the Bering Strait region has minerals," BSNC explains on its website.

Golden Seward Peninsula

Though the rich deposits of placer gold in Seward Peninsula streams and beaches have captured the imaginations of millions over the past 120 years, the hardrock source of most of this alluvial aurum has yet to be mined – much of which will likely be found on BSNC lands.

Roughly 500,000 oz of hardrock gold has been outlined at Rock Creek, a property only about five miles outside of Nome that is owned by BSNC and Sitnasuak, the village corporation that owns the surface rights.

Novagold Resources Inc. finished developing a mine at Rock Creek in 2008 but never achieved commercial production.

Bering Straits acquired Rock Creek in 2012 and evaluated the potential of advancing the mine to commercial production. After two years, however, BSNC determined Rock Creek would not be economically viable and used the roughly \$13.5 million of bond money that came with the project to reclaim the mine.

While the gold mine never came to fruition, the successful reclamation made use of local labor and businesses, providing economic benefit to the region and BSNC's shareholders.

"The reclamation of the Rock Creek Mine brings closure to a project that began in 2006 with the construction of the mill, gold circuit, and tailing storage facility by Novagold," Schubert said in 2015.

Rock Creek, however, is not the only or most prospective gold property on BSNC lands in the Nome and Council mining districts, where roughly 7 million oz of

placer gold has been recovered so far.

One of these gold areas covered by BSNC land is Big Hurrah, a deposit about 35 miles northeast of Nome that produced around 27,000 oz of hardrock gold early in the 20th century.

Novagold, which considered trucking ore from Big Hurrah to the mill at Rock Creek, outlined 1.8 million metric tons of resource averaging 4.61 g/t (roughly 267,000 oz) gold.

Bluff. located on the southern shores of the Seward Peninsula about 50 miles east of Nome, is another gold deposit that has been discovered on BSNC ground.

Drilling carried out by BHP Billiton during the 1980s encountered gold in three zones at Bluff - Daniels Creek, Saddle, and Koyana Creek. Based on its work, BHP

estimated that Daniels Creek hosts 3 million metric tons averaging 3.43 g/t (300,000 oz) gold; Saddle contained 1.5 million metric tons averaging 3.77 g/t (165,000 oz) gold; and Koyana Creek hosts 2 million metric tons averaging 0.69 g/t (40,000 oz) gold.

These are two of the most advanced of the dozens of hardrock gold occurrences in the Bering Straits region. "Since these deposits do not adhere to man-made boundaries, many of them lie within a combination of BSNC, state, and federal land," the ANCSA regional corporation explains.

BSNC critical minerals

While lore and popular culture has shined a light on the vast gold found in the Bering Straits region, the Seward Peninsula is also rich in tin and several related critical minerals.

Much like the BSNC region, at first glance, tin does not seem critical but has played a vital role in human history for eons.

Today, tin is on the U.S. Geological Survey's list of 35 minerals and metals deemed critical to the United States.

And, the Bering Straits region is one of the best places in the U.S. to find this critical metal.

In fact, the western tip of the Seward Peninsula has alluvial deposits so rich in the tin mineral cassiterite that early prospectors who flocked to the area during the gold



rush days established Tin City, a small mining town near Cape Mountain and about 90 miles northwest of Nome, in 1904.

Placer mining of Cape Creek, which drains the mountain rising to the northwest of Tin City, produced an estimated 3.3 million pounds of placer tin, according to the USGS. The largest known chunk of cassiterite recovered during placer mining of Cape Creek weighed

While Tin City and the mines it hoped to support were short-lived, this minerals-rich area of western Alaska still hosts rich placer and lode tin deposits.

Other tin prospects found near Cape Mountain include Lost River and Potato Mountain.

Kougarok, located about 90 miles east of Tin City, is another promising lode tin deposit on the Seward Peninsula.

Work in the 1980s estimated a portion of the tin-bearing granites there hosts some 6 million lb of tin in 240,000 tons of historical resource averaging 1.3% tin. In addition, some of the tin deposits at Kougarok have an appreciable amount of beryllium, tungsten, fluorspar, niobium, and tantalum, all on the USGS list of critical minerals.

BSNC-owned lands cover tin-rich occurrences near Tin City and Kougarok. The ANCSA corporation also owns lands that cover uranium and rare earth occurrences at Mount Arathlatulik on the Seward Peninsula.

BSNC Businesses



Bering Straits Native Corp.'s 2015 purchase of Alaska Industrial Hardware ensures AIH remains an Alaskan-owned company delivering tools, hardware, industrial supplies, and maintenance and safety products for decades to come.

Bering Straits businesses with a mission

Bering Straits businesses with a mission

Bering Straits Native Corp. has built an impressive group of more than 20 subsidiary businesses that provide everything from the finest hotel accommodations in Nome to aerospace engineering.



In between these extremes lies numerous BSNC-owned companies that can supply services and supplies to Alaska's mining and mineral exploration sector.

- Alaska Industrial Hardware More widely known as AIH, this high-quality equipment, tools, industrial materials, maintenance supplies, and safety products supplier was acquired by BSNC in 2015.
- **Arcticom** An Anchorage-based telecom company that offers a broad range of information technology solutions that is recognized with exceptional ratings and commendations tied to installation successes.
- Bering Straits Development Company A full-service general contractor with experience in commercial buildings and industrial construction; and in-house expertise in electrical, plumbing, and heating systems.
- Bering Straits Information Technology Provides IT support services related to software development, hardware development, project and inventory management, and information assurance and security.
- Bering Straits Logistics Services Provides logistics support services, including supply-chain management, warehousing and storage; specialized freight

handling, and related facilities support.

- Bering Straits Technical Services – Provides short- and long-term solutions related to administrative management; financial planning; records management; and office and organizational planning.
- **Eagle Eye Electric** A full-service general contractor and construction manager that provides construction, renovation, electrical and environmental solutions to meet customer needs.
- **Iyabak Construction** A licensed engineering and general construction firm providing design-build and construction management services in Alaska and the Pacific Northwest.
- **Sound Quarry Inc.** Independent operator of Cape Nome Quarry about 12 miles east of Nome, a source of industrial-grade armor stone and riprap used on seawalls, causeways, and breakwaters.

By contracting with BSNC companies, mining ventures and other customers are helping Bering Straits Native Corp. achieve its mission to improve the quality of life of its people through economic development while protecting their land and preserving their culture and heritage.

"I really want our customers and others that look at Bering Straits ... to recognize us as a leader, not only in the kinds of services that we provide but also to understand and see the strong business ethics that we operate under," said Bering Straits Native Corp. President and CEO Gail Schubert.

Bristol Bay Native Corporation



"Fish First" guides BBNC resource policy

Bristol Bay Native Corp. prioritizes prized salmon resource

By SHANE LASLEY

Data Mine North

The Bristol Bay region is home to two resources that beyond a doubt earn the moniker "world-class" - an annual run of sockeye salmon that is second to none and Pebble, the largest undeveloped copper and gold deposits known to exist on Earth.

These world-renowned resources, however, have stirred up controversy in this Oklahoma-sized region of Southwest Alaska, as many of the roughly 7,400 Bristol Bay residents are concerned that mining the copper, gold, molybdenum, rhenium, and other metals stored at Pebble could put the salmon fishery at risk.

For many years, Bristol Bay Native Corp. took a neutral stand on Pebble, which is on state lands within the Alaska Native Claims Settlement Act (ANCSA) corpora-

tion's resource-rich region of Southwest Alaska. In 2009, however, BBNC came out in opposition to the proposed mine, citing "unquantifiable risks to the fishery and subsistence resources in the region" as the basis for this stance.

"BBNC's firm opposition to Pebble is consistent with the values of cultural and economic sustainability to which we hold ourselves," said BBNC Chairman Joe Chythlook.

While the ANCSA regional corporation has "fish first" values in Bristol Bay, it does not have an outright opposition to mining or other responsible resource development across the 62,500-square-mile region.

"BBNC does not otherwise oppose mining development. Pebble Mine is simply different," said BBNC President and CEO Jason Metrokin.

Diverse landscape, people

From a sweeping coastline to volcanic mountain ranges, the Bristol Bay region offers a widely diverse landscape that includes tundra-covered expanses, boreal forests, and the 77-mile-long Iliamna Lake.

This varied and resource-rich landscape drew Yup'ik, Aleut-Alutiiq, and Dena'ina Athabaskan people to the Bristol Bay region more than 10,000 years ago.

While these three groups brought with them distinct languages and customs, over the centuries they overcame any differences to build a thriving network of traders.

Today, the descendants of these discrete yet cooperative first settlers of Bristol Bay make up the more than 10,000 shareholders of BBNC.

The same resources that formed the basis of the subsistence and trade economies of these first people of "a place that's always been" drew Russian and western settlers to Bristol Bay in the 18th and 19th centuries.

Danish cartographer Vitus Bering was the first western explorer to sail across Bristol Bay during an expedition for Russia in 1741.

It was famed British Explorer Captain James Cook, however, who named Bristol Bay while navigating the southern coast of Alaska during his final voyage in 1778.

Over the ensuing two centuries, Russia claimed Alaska, sold it to the United States, Alaska became a state, and ANCSA was passed.

Under ANCSA, village corporations in the Bristol Bay region received title to 3 million acres of surface estate and BBNC, the regional corporation, received subsurface rights to the same lands.

BBNC also received full title – surface and subsurface rights – to an additional 116,000 acres in the Bristol Bay region.

These land selections were prioritized around subsistence and traditional uses, as well as the potential for natural resource development.

The natural resource lands selected by BBNC and ANCSA village corporations in the Bristol Bay region included mineral properties prospective for gold, silver, copper, zinc, molybdenum, tungsten, oil, and coal.

Kawisgag copper-gold potential

Some of BBNC's most promising mineral lands are found on the Alaska Peninsula, a tectonically active and geologically young area on the Pacific Ring of Fire.

The Alaska Peninsula and Aleutian Islands, which extend roughly 1,200 miles to the southwest, are being formed as the Pacific Ocean plate dives under the North American plate. This dynamic geology is especially prospective for epithermal gold and intrusive-related deposits such as copper- and gold-rich skarns and porphyry mineralizing systems.

BBNC's Alaska Peninsula properties were last explored

by Millrock Resources Inc., which cut a deal with the Southwest Alaska corporation in 2012 to investigate the mineral potential across a roughly 500,000-acre land package that covers a more than 75-mile stretch of the peninsula known to host copper, gold and other metals.

Kawisgag, situated toward the southern end of this land package, is a porphyry copper-gold-molybdenum prospect located about four miles east of the village of Ivanof Bay and within two miles of tidewater.

Grab samples of porphyry-style mineralization at Kawisgag have returned as much as 6.2 grams per metric ton gold and 1% copper.

The strong mineralization at Kawisgag is recognizable on surface by a three-square-mile color anomaly created by the oxidization of the sulfides there.

Exploration by Resource Associates of Alaska from 1979 to 1982 targeted gold in a quartz-arsenopyrite vein system in the northeast corner of the prospect that is traceable for more than 730 meters. In addition to gold, rock samples collected by Resource Associates contained promising quantities of copper, molybdenum, and silver.

Cominco Ltd., drawn to the copper-gold porphyry potential, further explored Kawisgag with mapping and sampling in 1989 and 1990. Rock samples collected by Cominco returned as much as 6.2 g/t gold, 8.1 g/t silver, 0.28% copper, and 0.1% molybdenum.

Additional early staged exploration – mapping, sampling and geophysics – carried out by Full Metal Minerals, Metallica Resources and Millrock have provided further evidence of buried high-grade copper-gold porphyry mineralization at Kawisgag.

BBNC's lands department said the metals potential turned up by this reconnaissance-level work warrants further exploration, including first-pass drilling, and the corporation is looking for a new partner for Kawisgag and its other properties on the Alaska Peninsula.

Bay View Inc., an ANCSA village corporation, owns the surface rights at Kawisgag and BBNC holds the mineral rights to this copper-gold prospective property.

Mineral-rich Chignik area

Another four BBNC Alaska Peninsula prospects that deserve further investigations are located near Chignik, a village about 50 miles northeast of Ivanof Bay.

Two of these – Mallard Duck and Warner Bay – are situated roughly 10 miles south of Chignik.

On lands owned wholly by BBNC, Mallard Duck hosts a large alteration zone that was first recognized by prospectors at the turn of the 20th Century.

More recent exploration at Mallard Duck, also referred to as Mallard Duck Bay or MDB, has included mapping and sampling by Bear Creek Mining and Resource Associates in the 1970s and 1980s; polarization and ground magnetic surveys completed by Full Metal and Metallica in 2008; and mapping, sampling, geophysics, and drilling

by Millrock and First Quantum Minerals in 2014.

While this work has identified swarms of veins containing gold, silver, copper, molybdenum, zinc, and lead within a 15-squaremile area, an economic porphyry copper-gold deposit has yet to be identified at Mallard Duck.

Warner Bay, which is just south of Mallard Duck, is an even earlier staged porphyry prospect on lands owned by the village corporation Far West Inc. (surface) and BBNC (subsurface).

Mineralization. including chalcopyrite (copper), sphalerite

(zinc), and molybdenite (molybdenum) occurs in massive sulfide veins as part of a northwest-trending shear vein swarm at Warner Bay.

Sampling carried out in 2008 by Full Metal and Metallica returned up to 3.95 g/t gold, 89,100 g/t silver, 13.3% copper, and 0.12% molybdenum.

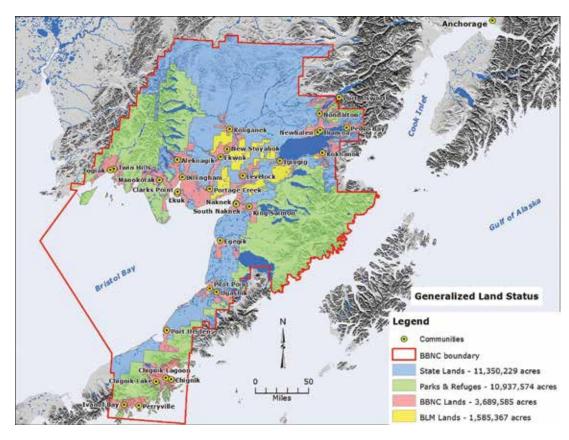
Bee Creek, which has also been referred to as Dry Creek, is another porphyry prospect about 15 miles north of Chignik.

This prospective property was initially explored by Bear Creek Mining, which drilled five holes in 1976. One hole cut 160 meters averaging 0.25% copper, 0.011% molybdenum, including 20 meters of 0.35% copper and 0.018% molybdenum, according to a Bear Creek Mining report.

Similar results were encountered in two holes successfully completed by Metallica Resources and Full Metal Minerals in 2006, including a 118-meter intercept averaging 0.32% copper and 0.21 g/t gold.

Following up on the historical work, sampling and mapping by Millrock and First Quantum geologists in 2014 and 2015 outlined a core zone at Bee Creek rich in copper, gold, and molybdenum surrounded by a halo of anomalous zinc, lead, and manganese.

"We found this beautifully zoned alteration system, and we found this beautifully zoned metallic anomaly in soil," Millrock Resources President Greg Beischer said at the time. "It is just an absolute classic porphyry signature."



Millrock and First Quantum narrowed targets for drilling with induced polarization geophysics. While this 2015 drill program encountered promising porphyry copper-gold mineralization, the results were not strong enough to encourage First Quantum to fund additional drilling on the Alaska Peninsula.

A deposit of high-volatile bituminous coal is also found on BBNC lands near Chignik.

Roughly 230 million metric tons of coal averaging 11,800 British thermal units (BTU) per pound have been identified in this formation, and the up to eight-foot-thick beds found there are hypothesized to contain as much as 1.5 billion metric tons of this thermal coal.

This near tidewater coal could provide a power source for mining any economic copper and gold deposits turned up in the region or could easily be shipped to Pacific Rim customers.

High-grade gold near Iliamna

In addition to the mineral prospective lands on the Alaska Peninsula, BBNC owns two properties south of Lake Iliamna - KUY and Fog Lake - that show the potential for high-grade gold.

Situated about eight miles south of the village of Kokhanok, KUY has shown the potential for high-grade gold and silver.

Resource Associates of Alaska discovered bonanza grade gold-silver telluride mineralization at KUY in 1980. Samples from two quartz veins within the Discovery zone – Discovery and Amethyst – contained as much as

56 oz/ton gold and 163 oz/ton silver.

Two areas of lower grade gold and silver – Swale zone and East Bench – were later discovered outside of the Discovery zone. Rock samples collected at Swale returned as much as 0.34 oz/ton gold and 0.73 oz/ton silver.

Homestake Mining Company evaluated KUY in 1997 but its week-long investigation did not duplicate Resource Associates bonanza grade findings.

Five holes targeting the Discovery vein in 1980 and another four drilled by Andover Mining in 2007 and 2008 did not encounter ore grade mineralization, leading geologists to determine these veins to be highly discontinuous and an unlikely target for future drilling.

There currently is not enough information on KUY to allow for a definitive interpretation of the geological environment there. However, evidence indicates that there could be a nearby porphyry deposit, something this part of the Bristol Bay region is known for.

Further interpretation of the data from geophysics carried out by Resource Associates and Andover could help narrow future drill targets on this property.

BBNC owns both surface and subsurface rights of the core area of KUY, while southern extensions of this prospect trends onto state lands.

Fog Lake hosts an epithermal gold target about 15 miles northeast of Kokhanok.

Most of the gold mineralization identified so far at Fog Lake occurs in 0.25- to 1-inch-wide subparallel massive sulfide veinlets. More than 40 veins were identified in a 1,800-foot section exposed in the Fog Creek gully, in concentrations of up to five to eight veins per foot.

More than 570 soil samples collected in 1978 outlined a 700- by 300-meter gold anomaly near the Fog Creek gully. Seven of the soil samples from this area contained more than 1 g/t gold and the best sample returned 18.8 g/t gold. Samples from this area also returned up to 0.32% copper, along with anomalous zinc, lead, and silver.

Two holes drilled at Fog Lake in 2008 returned anomalous copper and gold associated with quartz and pyrite veins. The highest-grade intercepts from the 305 meters of drilling include 2.15 meters of 1.48 g/t gold and 0.08% copper and one meter of 2.85 g/t gold.

The mineralization in these holes, nor the narrow veins identified in Fog Creek, seems to explain the large gold anomaly identified on surface and BBNC geologists believe an epithermal gold system may be present under shallow overburden.

Additional geophysics would likely be the next step in narrowing drill targets at this prospect south of Lake Iliamna.

Alaska Peninsula Corp., a combination of five ANCSA village corporations in the Bristol Bay region, owns the surface lands at Fog Lake and BBNC owns the subsurface rights.

Developing socially, environmentally, and fiscally sus-

tainable mines at these and other mineral deposits could add jobs and other economic opportunities in the Bristol Bay region.

Path to Prosperity

Like many of Alaska's rural areas, the Bristol Bay economy is a mix of subsistence – gathering wild resources for food, shelter, clothing, crafts, and other purposes – and cash.

"Households use money to purchase fuel, electricity and family goods – such as clothing and shelter. Residents also use cash to pay for equipment used for subsistence activities: guns and ammunition, fishing nets, boats, all-terrain vehicles and snowmachines," BBNC penned in a presentational guide of the Bristol Bay region.

The cash component of the economy comes primarily from jobs connected to the commercial fishing industry in the region, along with government and health care.

Many fishing jobs, however, are seasonal.

In addition to resource development, BBNC sees investing in small businesses within the region as a means of bolstering and diversifying the cash component of the Bristol Bay economy.

Toward this end, Bristol Bay Development Fund, created as a BBNC subsidiary in 2014, is investing \$5 million into the Bristol Bay economy over an 11-year span.

This investment aims to provide multiple layers of benefits to shareholders living in the Bristol Bay region – expanding shareholder-owned businesses; providing new job opportunities; and improving the quality of life through the new goods and services provided by these new businesses.

"Small businesses are really the heartbeat of a community, and it's important for us to support that," said BBNC CEO Metrokin.

To spur these new ideas, BBNC and the development fund have launched "Path to Prosperity," a business development competition aimed at developing socially, environmentally and fiscally sustainable small businesses in the Bristol Bay region.

After awarding a total of \$50,000 to three Bristol Bay businesses in March, the Bristol Bay Development Fund Path to Prosperity competition has given out \$100,000 in prize money.

"The winning companies offer a genuine care for their communities and their product or service," said Bristol Bay Development Fund Manager Cindy Mittlestadt. "It will be fun to follow these companies and the prior year's awardees to measure their successes."

For BBNC, this investment in local small businesses supports its efforts "to protect the land in Bristol Bay, celebrate the legacy of its people, and enhance the lives of its shareholders."

Guest Column - Impossible Challenge



ANCSA: an impossible challenge achieved

Young state, oil discovery, and DC hero help secure settlement

By WILLIAM L. IGGIAGRUK HENSLEY

Guest Writer

President Richard M. Nixon signed the Alaska Native Claims Settlement Act (ANCSA) in 1971, exactly 230 years after Captain Vitus Bering's Second Kamchatka Expedition finally sighted land in Alaska offshore from what is now Mount Saint Elias in 1741.

In the years between, the 70,000 or so Unagan (Aleut), Sugpiaq, Yupik, Inupiat, Athapascan, Tlingit, and their descendants began to experience extreme changes brought on by Russian and American firepower, disease, religion, commercial exploitation of sea otters, fur seals, whales, walrus, salmon, copper, gold, and timber.

Colonialism was not a word that my generation used or even understood.

Historians almost always look at history from the per-

spective of national interests and personalities, and the impacts and consequences on the indigenous inhabitants are either ignored, whitewashed, or forgotten.

In Alaska, the indigenous inhabitants had occupied and controlled their territories for millennia, developed cultures compatible with their environments, governed, warred, traded, and celebrated life –even in the extreme cold of the Far North.

In the case of the Inuit, their language and culture extended from the North Pacific (Kodiak Island) clear across the Arctic to Hudson's Bay, parts of Quebec and Labrador, and on to Greenland.

Doctrine of Discovery

The rationale used by the Spanish to take foreign lands was the notion of "discovery."

In 1493 Pope Alexander VI issued the Papal Bull "Inter

Caetera" to ensure the Spanish had exclusive rights to lands discovered by Christopher Columbus a year earlier. The Bull stated that "the Catholic faith and the Christian religion be exalted and be everywhere increased and spread, that the health of souls be cared for and that barbarous nations be overthrown and brought to the faith itself."

The Pope declared that all lands one hundred leagues west of the Azores and Cape Verde Islands belonged to Spain and that it had exclusive rights to all territories and trade. Others had to secure a special license from the Spanish Government. Any lands not inhabited by Christians could be claimed and exploited by Christian rulers.

In reality, the Pope had authorized and blessed what became a reign of terror among the citizens of Hispaniola and Central and South America.

This notion of discovery became part of the foundation of American law when Chief Justice Marshall used the principle in the Johnson v. McIntosh case in 1823.

"Colonialism was not a word that my generation used or even understood."-William L. Iggiagruk Hensley

Indigenous Americans, including Alaska Natives, had "aboriginal title" or a right of occupancy, which could be extinguished by the claiming sovereign nation. The Indian nations could only deal with the sovereign in ceding lands through treaty and were not free to dispose of lands to states or other third parties.

All this legal and ecclesiastical history was unknown to us when the fight over Alaska lands came to a head in the 1960s. In retrospect, several realities that helped to bring about a land settlement:

- Alaska Natives' underlying aboriginal title ownership had never been extinguished.
- Billions of barrels of oil were discovered in Prudhoe Bay in 1968, and a pipeline across Alaska was necessary to bring the oil to market.
- Alaska did not have enough revenue to run what little government it had.
- Alaska needed the land and the oil revenue to survive as a state.
 - The United States needed the oil.
- Alaska Natives were united in their desire to control their own land despite internal differences.
- The United States Congress, controlled by the Democrats, was open to a settlement.
- Richard Nixon, President-elect in 1968, was convinced that American Indians and Alaska Natives deserved "self-determination" and he backed the passage of legislation.

Mike Gravel, supported strongly by village Alaska, defeated Sen. Ernest Gruening in 1968. Gruening was a staunch opponent of Alaska Natives securing land and had done nothing to resolve the issue. He opposed the creation of any indigenous institutions.

Alaska mining and business opposition

One of the most vociferous opponents of any kind of land claims legislation was the Alaska Mining Association. Its president, Leo Mark Antony, and George Moerlein, chair of the association's Land Use Committee, were vocal and unyielding in their negative position.

Moerlein, in his testimony to a Senate committee in 1968, said, "... to grant their land requests may bring the continued development of Alaska's natural resources to a standstill." He also stated that "I submit to you that neither the United States, the State of Alaska, nor any of us here gathered as individuals owes the Natives one acre of ground or one cent of the taxpayer's money."

Another individual opined, "If given land, with the stipulation in the original papers, i.e., 40 million acres, this will absolutely cause the economic collapse of the State of Alaska." (Robert E. Curtis letter to a Senate committee.)

Emil Notti, President of the Alaska Federation of Natives, remembered when Don Dickey, Executive Director of the Chamber of Commerce, ran around a convention with a cowboy hat on with an arrow through it, mocking the land claims of Alaska Natives.

As Executive Director of the AFN, in December 1969, I found it necessary to attack the Chamber of Commerce for raising "unjustifiable fears about the settlement we seek and our legislative program." I charged them with having "limited vision and are threatening and pressuring our Congressional delegation to cease efforts to work out a compromise land claims package."

The chamber was also pushing for small acreages adjacent to villages and opposed the overriding royalty—which was a key element of the financial package being developed.

Challenging colonial mentality

From the beginning of the land claims struggle in the 1960s, only the Alaska Natives had any hope that the federal government might just reverse itself and convey land to its first citizens. It was a complete long shot, after all, the country had spent 200 years taking lands from Indian nations and paying them a pittance—if at all.

In the words of the historian Hubert Howe Bancroft, "On the whole, the people of the United States have not paid an exorbitant price for the ground upon which to build a nation. Trinkets and trickery in the first instance, followed by some bluster, a little fighting, a little money, and we have a fair patch of earth, with good title, in which there is plenty of equity, humanity, sacred

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rights, and star-spangled banner. What we did not steal ourselves we bought from those who did, and bought it cheap."

The Federal Field Committee (FFC), headed by Joseph Fitzgerald, was set up to help Anchorage recover from the devastating 1964 earthquake. They were to use their competent staff to coordinate the use of federal dollars in the most effective way.

Fitzgerald and his staff were contracted by Sen. Henry



The Dec. 22, 1971 edition of Tundra Times with news that President Nixon signed the Alaska Native Claims Act into law.

Jackson, Chairman of the Senate Interior Committee, to do a study of the Alaska Native land claims – the first such study in over a century. Their product was a sixpound, 569-page behemoth, but it gave credence to the Native land claims and suggested a \$1 billion settlement over a ten-year period, but only 4-7 million acres of land.

In retrospect, the FFC was, in reality, proposing to use the settlement as a mechanism to destroy the various Alaska Native cultures. They saw the villages as "racial enclaves" that would prevent Alaska Natives from joining mainstream Alaska. The FFC was trying to "individualize" the settlement and provide small tracts for homesites and subsistence lots. Fitzgerald's allocation of land would provide a township (23,040 acres) and would go to a state municipal entity. His mechanism for management was a Presidentially appointed Development Corporation for all Alaska Natives initially set up as a non-profit but to revert to a for-profit corporation in 10 years. The Native stockholders would be in control of the directors, but by the tenth year, the stock would then have to be sold in the open market and Alaska Natives would no longer be in control. Alaska Natives would end up owning nothing but the stock over which they would have no control.

AFN had a real challenge in beating down this proposal as it would have Alaska Natives in control of nothing – land or money. There would have been no village or regional corporations had the FFC's approach been adopted. The FFC proposal clearly reflected a colonial mentality.

I knew the staff personally, and it was a sad realization that they had little confidence in the Alaska Natives' willingness and ability to manage their own resources and were trying to take us down the road of extinguishing our cultural identity. But it was not clear at the time whether they were reflecting Chairman Henry M. Jackson's perspective or their own. If the former was the case, we had a huge challenge in preventing their ideas from taking root in the Congress.

To me, we were seeking land to be able to continue our way of life. The financial aspect was important but not the overriding objective. I realized from my research that paying off the Indians for their lands was the historic settlement approach and that we had to make land the foremost issue for Alaska Natives.

A DC hero emerges

Secretary Stewart M. Udall was a hero to Alaska Natives and a pariah to Alaskan politicians for his decision to cease interim conveyances to the State of Alaska when those lands were being claimed by indigenous Alaskans who had occupied their lands for millennia. He was, after all, the trustee for Indian reservations, reserves, allotments, and restricted townsites. It appeared that he did not want to be the authority to ignore Alaskan indigenous ownership rights and dispossess them of their lands when he was supposed to be protecting us. After all, the Congress had included the "disclaimer" clause, which stated that the state disclaimed all right and title to "any lands or other property (including fishing rights), the right or title to which may be held by any Indians, Eskimos, or Aleuts ... or is held in trust for said natives ... shall be and remain under the absolute jurisdiction and control of the United States until disposed of under its authority ..."

From the Treaty of Cession in 1867 to 1959, despite all

the laws that had been passed in those intervening years, our sovereign, the United States, had never extinguished Alaska Natives' underlying title. However, had Sec. Udall signed the interim conveyances, that act would have been an extinguishment of our aboriginal rights.

As a non-lawyer student in 1966, I realized the danger that we were in. If there was ever a chance to turn 200 years of American history around on this issue, we had to stop the state selections. Secretary Udall, a westerner whose family was intertwined with the Native American world, precipitated a crisis for the new state, and Governor Hickel fought back furiously - legally and politically. But Udall stuck to his guns and instituted the "superfreeze" the last week he was in office before the Nixon administration took over, with our nemesis, Governor Hickel, slated to take over the department that had provided us the leverage to encourage the Congress to act on our claims.

Despite Udall's staunch support for Alaska Natives and his willingness to offer ideas to move forward with legislation, the Department of Interior's ideas were also rooted in colonial notions of how to deal with "the Indians":

- Indian reservation land was held in trust for the tribal members.
- Nothing could be done with the land without approval of the Department.
- Tribes had to be recognized by the department to qualify for the myriad of programs to enhance the material life of the Indians.
- The country was divided into "Areas" with a director overseeing the tribes in his jurisdiction and he, in turn, reported to the Commissioner of Indians Affairs (later the Assistant Secretary for Indian Affairs).

Udall's department's initial proposal in the spring of 1967 was for 10 million acres of surface land for the villages; the land was to be held in trust for 25 years; compensation would be via the Court of Claims with a date of "taking" as of 1867 (\$7.2 million); the Department would control the proceeds.

There was virtually no support for Udall's initial proposals.

Land Claims Task Force

In the meantime, there was a stalemate. The AFN board had no funds to meet or do analysis and the state was stymied from finalizing their hoped-for land conveyances to keep the state solvent.

Not clear at the time was this reality: no legislation was going to pass Congress to resolve the issue unless 1) the state was an active player in the negotiations and 2) the Alaska Natives had to be united and offering ideas that had the potential of being supported by the State and our congressional delegation.

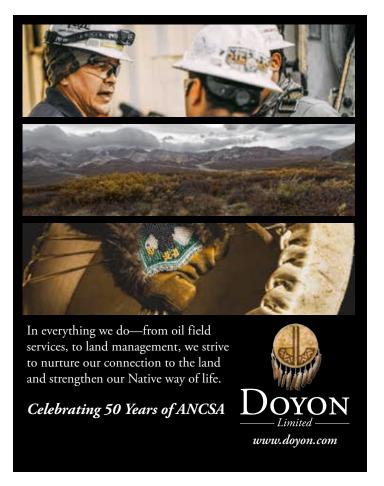
We agreed to let Governor Hickel appoint the entire AFN board to the new Rural Affairs Commission to enable AFN to have funds for travel, hotels, and meals and to solidify its position on a settlement. This became known as the Land Claims Task Force. They elected me Chairman and authorized me to select a drafting committee which, under time pressures, came up with recommendations to the Governor, the legislature, the Washington delegation, and the White House.

This entity was as close as we came to a tripartite negotiation. The group was state-appointed but in addition to AFN representatives, there was always an Interior Department official, Assistant Secretary Robert Vaughn, in the discussions as well as Governor Hickel's hired consultant, flamboyant Edgar Paul Boyko.

The challenge was to come up with ideas that the state could respond to and to be prepared to present our recommendations to Senator Jackson's Interior and Insular Affairs Committee in February 1968.

The Task Force submitted its recommendations to the state in January and proposed a four-part settlement:

- A grant of 40 million acres of land in fee.
- A 10% royalty interest in outer continental shelf revenues as suggested by Secretary Udall with an immediate payment of \$20 million.
 - A state royalty interest of 5% on state lands.
 - A license to use surface lands under occupancy and



use by Alaska Natives.

• Objectives were to avoid litigation, if possible; grant present property interests; avoid state and federal control; avoid "freezing the villages in history"; spreading the benefits from royalties widely; and utilizing modern corporate forms in business enterprise.

These ideas were designed to minimize state opposition to a land settlement because without the state concurrence, our delegation would be stymied in moving forward. The recommendations were well received and even resulted in the passage of a bill by the legislature approving a \$25 million payment contingent on lifting of the land freeze. It became a dead letter but it helped move the state and the citizens toward a positive outcome.

The Task Force was able to secure Governor Hickel's support for a 40-million-acre settlement. That was a significant victory as he enabled other actors on the political scene to increase their support on the higher number rather than the mediocre acreages offered in various bills. His support for a state royalty interest was also very significant, as well as the support for the corporate vehicle for management.

The work of the Task Force definitely helped move the entire prospect for a land settlement forward and provided ideas that eventually emerged in the federal legislation.

To the horror of the Alaska Native leadership, Governor Hickel was nominated by President-elect Richard Nixon to be the nation's Secretary of Interior, replacing our hero Secretary Stewart Udall.

We knew that Hickel's objective was to eliminate the land freeze and authorize a corridor for the trans-Alaska pipeline that the oil industry, Alaska, and the nation needed for their financial and energy security. We had successfully turned Governor Hickel toward positivity in dealing with the land claims issue, but we knew we had to keep the land freeze to keep the Congress' feet to the fire and come up with legislation.

The Alaska Federation of Natives took up a collection and sent Emil Notti, Eben Hopson, John Borbridge, and myself to Washington to see if we could secure a commitment from Hickel to maintain the freeze while we all worked to get a bill passed by Congress.

In the meantime, a "Truth Squad" of Alaskans chartered a plane to Washington to tell the legislators what an excellent person Hickel was – some of our AFN board members were willing to see Hickel as Secretary of Interior without a commitment on maintaining the land freeze. Under the pressures, some of our AFN board members were beginning to crumble.

Keeping the land freeze was an impossible hope as Hickel had fought the land freeze tooth-and-tong as Governor, and we doubted that he would change his mind as Secretary of Interior. His commitment to Indian

America was not as strong as Udall's. Or perhaps, he saw Alaska failing as a state without the oil revenues that the pipeline would bring.

We were unsuccessful in getting his commitment, so we appealed to Sen. Jackson and the Interior Committee to secure his commitment to the freeze to give Congress a chance to pass a bill. It was a great sigh of relief when Hickel, to save his nomination, finally conceded under questioning by Sen. Jackson, that he would not tinker with the land freeze without consulting the Chairman and the committee.

Without the land freeze, we felt that Alaska Natives' hope for a land bill was toast, and we would be forgotten and shunted off to the Court of Claims where any land conveyance was absolutely out of the question and payment made in pennies an acre, if at all.

Finally, after five frenetic, pressure-filled years, President Nixon signed Public Law 92-203 on December 18, 1971, "An act to provide for the settlement of certain land claims of Alaska Natives, and for other purposes."

We all know the broad outlines of the settlement: a payment of \$962.5 million, conveyance of 44 million acres of land in fee simple; the establishment of 12 regional corporations in Alaska and nearly 200 village corporations to manage the land and funds, a provision that 70% of revenues from land resources be distributed among all 12 regional corporations; and one half of the amount received by the regions would be distributed to the village corporations within its boundaries, and for pioneer Alaskans, they finally secured, in Section 4(c) an extinguishment of all claims based on aboriginal right or title.

To the horror of all Alaska Natives, absent from the bill was any provision for continued use of the land for hunting, fishing, and trapping – the primary reason many Alaska Natives pushed for the land settlement. That challenge was dealt with in 1980 in a separate bill.

▶ Find out more about how NANA Corp., the ANCSA regional corporation for Willie Hensley's Northwest Arctic home, utilized the ANCSA corporate structure as a tool to create economic opportunities at Alaska Natives utilize new corporate tool on page 69.

ABOUT THE AUTHOR: Willie L. Iggiagruk Hensley is an Inupiat from the Northwest Arctic Region. He is an author, a college professor, and an Alaska Native leader who was instrumental in the formation of the Alaska Native Claims Settlement Act (ANCSA) of 1971, which restored 44 million acres of land to Alaska Natives. Hensley has been elected to both the Alaska State House of Representatives and the Alaska State Senate. He is one of the founders of NANA Regional Corporation. His autobiography, Fifty Miles from Tomorrow: A Memoir of Alaska and the Real People, was published in 2008. Hensley currently serves as a visiting distinguished professor in the College of Business and Public Policy at the University of Alaska Anchorage.



ANCSA at 50 Minerals for the World

The passage of the Alaska Native Claims Settlement Act made it possible for NANA to provide critical minerals for society.

Red Dog Mine, located on NANA land, is one of the largest producers of zinc, which is used for galvanizing steel, fertilizer, zinc tablets for colds, sunblock and more.













Calista Corporation



A golden opportunity for Calista region

Donlin Gold could be an economic generator for region, state

By SHANE LASLEY

Data Mine North

Calista Corp. and its more than 33,000 Yup'ik, Cup'ik, and Athabascan shareholders are on the cusp of realizing the benefits that will come with the sustainable development of a mine at the 45-million-ounce Donlin Gold project on their land in the Yukon-Kuskokwim region of Southwest Alaska.

With 39 million oz of gold in measured and indicated resources that average 2.24 grams per metric ton, and another 6 million oz in the inferred category averaging 2.02 g/t gold, Donlin Gold is truly a world-class asset in terms of both its size and grade.

And the sheer size of this gold deposit is currently restrained, well, by its sheer size.

Geologists familiar with Donlin have confidence that

when the entire trend of gold mineralization identified there is fully explored, upwards of 100 million oz of gold will ultimately be discovered on the Calista-owned property.

"Key geologists that have been involved in the project for many years believe that when Donlin Gold's holdings are explored systematically, the next Donlin may well be found at Donlin," said Novagold Resources President and CEO Greg Lang.

Novagold is 50% owner of Donlin Gold LLC, an Alaska-based joint venture partnership formed to develop a gold mine on this world-class project. Barrick Gold Corp. owns the other half of this JV.

The 45 million oz of gold already discovered at Donlin provides enough resources to consider a mine capable of churning out more than 1 million oz annually for more than three decades.

Such an outstanding mine on lands owned by the local people will be an economic boon for the Calista region, a remote area covering the lower ends of the mighty Yukon and Kuskokwim rivers where employment opportunities are scarce, and the costs of goods and services are high.

Calista sees the jobs, infrastructure, and affordable energy that will come with a responsibly developed mine at Donlin Gold as a means for its shareholders to flourish in this region that they have called home for thousands of years.

"Ultimately, the strong environmental safeguards coupled with the economic development of such a large project will help fulfill the broader goal of self-determination by allowing residents and Calista shareholders to significantly participate in the world economy," said Calista President and CEO Andrew Guy.



Andrew Guy

And, much like the world-class Red Dog zinc mine on ANCSA

lands in Northwest Alaska, the economic benefits of a Donlin Gold Mine would reach Alaska Native regional and village corporations across the entire state.

Golden selection

It was no accident that Calista chose one of the largest deposits of gold on the planet when the Alaska Native Claims Settlement Act was signed into law nearly 50 years ago.

Following the 1971 passage of ANCSA, the newly formed Calista and the ANCSA village corporations in the Yukon-Kuskokwim region had just three years to select lands that would sustain the needs of their people.

Nelson Angapak Sr., who worked in the Calista Lands and Natural Resources department during the ANCSA regional corporation's early years, said these selections focused on lands of cultural significance and future economic potential.

"The policy of the lands department was that the village corporations must be advised to select the land with the most resource potential in terms of subsistence resources, mineral potential, and oil and gas potential, or any combination of the three," he explained.

To ensure that the most valuable lands were selected, Calista gathered all the information available on potential resources in its region and shared this data with the village corporations.

One of the parcels selected by the village of Crooked Creek and Calista covered a gold prospective area north of Crooked Creek, discovered by prospectors in 1909 but never developed. Today, this land package covers Donlin Gold.

"Our early leaders successfully fought for the right to

select the land because of its rich mineral deposit, and to maintain oversight as Alaska Native peoples," said Guy.

With The Kuskokwim Corporation (TKC) – an amalgamation of 11 ANCSA village corporations in the area – owning the Donlin Gold surface rights and Calista owning the subsurface rights, as well as a portion of surface estate, this world-class gold mine project is set to catapult Calista on the world stage, as well as provide jobs and other economic opportunities to its roughly 31,400 shareholders.

"The Donlin Gold project provides many opportunities for our shareholders and businesses across the region and state," said Tisha Naviqaq Kuhns, a geologist and vice president of lands and natural resources at Calista. "It also fulfills Calista's land entitlement for development under ANCSA and is our only natural land resource that permits our



Tisha Navigag Kuhns

region to participate in the world economy."

Inspired by Red Dog

Donlin Gold will not be the first world-class mine developed on land owned by ANCSA corporations. The Red Dog Mine on lands owned by NANA Inc. provides roughly 5% of the global zinc supply and has been an economic boost for the people of Northwest Alaska.

"The Red Dog Mine on NANA lands has operated for 30 years and provides a good case study for how remote communities in Alaska benefit from sustainable resource development," said Guy.

The Red Dog example begins with the healthy paychecks Red Dog delivers to hundreds of people in Northwest Alaska, a remote area where good-paying jobs would otherwise be scarce.

Today, around 57% of the roughly 600-person workforce at Red Dog are Alaska Natives, mostly NANA shareholders, who bring home an average annual wage of around US\$100,000.

"It has been a revolutionary thing for our region economically and demonstrates the kind of development that can be done that not only benefits the local people but protects the environment," said Willie Hensley, who was active in the founding of NANA and subsequent development of Red Dog.

The income from working at Red Dog provides cash for fuel, snowmachines, boats, and other goods and services that make living in rural Alaska easier and more prosperous; and the rotating schedule at the mine ensures the Northwest Alaska residents have the time to hunt, fish, pick berries and other subsistence activities that are important sources of food and cultural connection.

Rosie Barr, a NANA shareholder, said Red Dog has

served as "an agent of positive change" in the Northwest Arctic region of Alaska.

"I personally saw how the Red Dog Mine has been a positive transformation for the men, women and children of the Northwest Arctic Borough," Barr penned in an article for Storyknife, a newsletter published by Calista.

Red Dog's economic impact in the Northwest Arctic goes beyond jobs, thanks to NANA's ownership of lands where this world-class zinc mine is located.

Going into 2019, NANA had received

around \$2 billion in royalty payments from zinc and other metals produced at Red Dog over the past three decades.

Calista and all the other ANCSA corporations and their shareholders are bolstered by NANA's bounty from Red Dog due to revenue sharing under sections 7(i) and 7(j) of ANCSA.

ANCSA Section 7(i) requires regional corporations to distribute 70% of net revenues from resource development on ANCSA land among the rest of the regional corporations. In turn, Section 7(j) requires that half of the Section 7(i) payments received are distributed to the respective village corporations within each of the ANCSA regions.

"Royalty sharing has historically kept many Alaska Native corporations from going bankrupt," said Guy. "To this day, Red Dog payments are a significant source of income for regional and village corporations."

Calista aspires to be the next contributing regional corporation to the economic health of fellow ANCSA corporations across Alaska.

"Donlin Gold royalties would similarly be shared with other Native corporations for the benefit of their shareholders," the Calista president inked in a 2020 editorial.

Working at home

For many Calista shareholders, one of the greatest economic advantages of a Donlin Mine would be the ability to work within their region on a rotational



schedule that provides opportunities to participate in subsistence and other activities during their time off.

To develop a 1-million-oz-per-year gold mine, Donlin Gold partnership anticipates paying out roughly \$375 million in wages to around 3,000 workers during the three- to four-year construction phase. Once in production, the company expects a payroll of more than \$100 million annually to at least 800 workers that would be needed at the mine currently being considered.

While not all these jobs will be filled by residents of the region, the history indicates that a large portion of them will.

The companies that discovered, explored, and hope to develop a mine at Donlin have made local hire a top priority since Placer Dome began exploring the gold deposit more than two decades ago.

"Placer Dome had a policy that was devoted to hiring indigenous people," said June McAtee, former vice president of Calista's land department. "This policy was an enlightened point of view for the time."

Despite a high turnover rate early in the process, Barrick Gold and Novagold remained steadfast in their commitment to hiring and training local residents.

"There has been a continual process of hiring and training shareholders from the very beginning. Even though the original company (Placer Dome) isn't there anymore, the companies that came after it believed in those same concepts and did more than just pay it lip service. They actually acted on that, and took the lead, in

fact, in the hiring and training," McAtee said.

This commitment to shareholder hire continues. Donlin Gold General Manager Dan Graham is particularly proud of the health, safety, and environmental record of the crew dominated by Calista shareholders.

"We have operated a clean camp for the second season in a row amidst the COVID pandemic, exceeded our productivity rates, while maintaining an excellent safety and environmental record," he said during a September update. "During the 2021 drill program, 70% of our direct hires were shareholders from Calista Corporation, which included the new camp catering contract with a Calista subsidiary."

While Placer Dome, Barrick, and Novagold deserve credit for their longstanding commitment to local hiring and training, such a success is also a testament to the

"The people of our region are adaptable, talented and strong." –Tisha Naviqaq Kuhns, Calista VP of land and natural resources

people of the Yukon-Kuskokwim region.

"The people of our region are adaptable, talented and strong," Kuhns, a Calista shareholder from Bethel, inked in an article for Storyknife.

The Calista geologist said being able to work at Donlin was a homecoming of sorts.

"Walking off the plane at the Donlin project, I was welcomed. I was able to use my technical skills but also had the deep family root connection to the region; I was at home," Kuhns wrote.

And, while working just 150 miles northeast of her hometown, Kuhns has broadened her technical skills.

"During my 11 years at Donlin, I had been given further opportunity to expand my skillset and moved laterally into the environmental department to manage the water quality baseline program," she said.

With roughly 30 years of gold in reserves at Donlin and the potential of a few more decades of ore yet to be outlined, Kuhns and upcoming Calista shareholders could have lifetime careers at this mine in their region.

"There has been a generational turnover since the project started," said McAtee. "It's the next generation of employees now."

Brightest economic prospect

Donlin Gold's enlightened shareholder hire program, coupled with unparalleled community engagement and a strong commitment to environmental safeguards, has earned the endorsements from many leaders in the Calista region.

"Calista supports Donlin Gold because modern mines

have a positive track record of environmental protections. It is the brightest economic prospect in our region, with the potential to reduce unemployment and the cost of living in many of our communities," said Guy.

Above being an economic generator, a mine at Donlin Gold would deliver natural gas and fiber optic connectivity to this remote region of Southwest Alaska.

"The excess pipeline capacity and fiber optic expansion gives us the opportunity to consider and identify the potential to pursue electrical power interties and increase internet services for communities in our region," the Calista CEO added.

For now, however, Novagold and Barrick are collecting the final bits of information needed to ensure that any mine developed at Donlin is both environmentally and economically viable.

This includes seeking the perspectives and local knowledge of people living in the Yukon-Kuskokwim region.

"Community residents, who are largely our shareholders, can have an important voice and presence in the development of this project and its future operations," said Guy. "By serving on a committee, our people have direct input on the project and a direct line of communication to its oversight group."

One such communication line is the Subsistence Community Advisory Committee, one of series of committees being launched by the Donlin Advisory Technical Review and Oversight Committee, or DATROC.

"This is our home. Our families have been the caretakers of this area for generations and will continue to steward these lands for generations to come. These community advisory committees provide a way for people of the region to have input, a critical voice of the potential project," said TKC President and CEO Andrea Gusty.

This technical oversight group is seeking input from communities near Donlin and the Yukon-Kuskokwim area transportation corridor that will be used to deliver equipment and supplies to the proposed mine.

"We are continuing to gather input from those residing closest to the project site out of respect for the land and its people's traditional subsistence practices," said Donlin Gold General Manager Dan Graham. "This is an exciting opportunity to share ideas and have solution-oriented dialog and discussions."

This dialogue will help ensure that development of a mine at Donlin meets the standards of the owners of the land where this world-class deposit of gold is located.

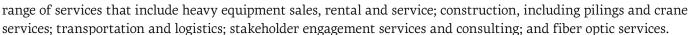
"At Calista, we are committed to sustainable development and protecting our way of life for generations of shareholders," said Guy. "This is our prerequisite for Donlin Gold and any other use of Calista lands."

Calista Companies

Calista companies - rural Alaska experts

Calista Corp., the Alaska Native Claims Settlement Act (ANCSA) regional corporation for the Yukon-Kuskokwim region of Southwest Alaska endeavors to set "the standard for economic success and corporate responsibility."

This corporate vision is passed down to Calista's subsidiaries, a group of 30 companies that provide a broad



Many of the Calista subsidiaries have rural Alaska expertise that makes them ideal for providing services to Donlin Gold and other mining projects in remote regions of the state.

Here are Calista companies equipped to provide services to Alaska's resource sectors:

Brice Inc. – A group of companies provide civil construction, marine services, materials, and rental equipment. With more than 50 years of experience, Brice companies are leaders in performing logistically complex projects in rural and remote locations.



Brice Civil Constructors - Specializes in marine construction, as well as associated land-based construction, dredging, coastal and wetland restoration, and drilling support. In addition, Brice Constructors works with other Brice companies to build airport runways, wind farms, tank farms, and roads.



Brice Marine - Provides marine logistic services that transport employees, equipment, fuel, and materials to remote sites at a variety of projects in rural Alaska and other locations around the world. The company also engineered a cutting-edge tug-barge design that MARINE LLC streamlines the shipping process.



Brice Environmental - A leader in performing logistically complex environmental and construction projects in remote locations. Brice Environmental takes pride in its proven track record of complete customer satisfaction as a result of its strong work ethic, safety record, and commitment to outstanding services.

Brice Equipment – Provides arctic grade construction support equipment to the oil and gas, and construction industries. They have a fleet of more than 300 pieces of equipment ranging from heavy construction machinery to camp trailers, generators, and compressors.



Alaska Crane - Offers one of the most robust and comprehensive arctic-grade cranes in the Pacific Northwest. This fleet includes cranes with 28- to 660-ton lift ca-



pacities and boom lengths of more than 400 feet. This is coupled with 3D lift planning software that ensures a safe and productive lift every time.

E3 Alaska - Grounded by the cultural values and traditions taught by Calista elders, E3 Alaska provides public outreach, event planning, translation and transcription, cultural awareness, and other services for mining, oil and gas, community planning, and transportation projects in Alaska.



Nordic Calista - Mobilizes and operates drilling and workover rigs on the North Slope. Its rigs are customized to be safe, efficient, and environmen-



tally protective, and are field-proven with operators. Nordic provides a spectrum of oilfield services including drilling, workovers, coiled tubing, and remote camp leasing.

STG Inc. – Specializing in rural Alaska construction, STG has more than 27 years of experience building infrastructure that provides essential services to the most remote communities. This includes installation of rural wind energy, communication towers, diesel generation, and bulk fuel system upgrades.



Yukon Equipment – The oldest Alaskan-owned heavy equipment dealer in Alaska and the sole dealer of several product lines in the state. In addition to



equipment rentals, sales, and leases, Yukon Equipment offers service and parts support from its three Alaska locations in Anchorage, Wasilla, and Fairbanks.

Chugach Alaska Corporation



Chugach Alaska seeks sustainable growth

To celebrate heritage, create intergenerational prosperity

By SHANE LASLEY

Data Mine North

Covering a roughly 450-mile stretch of postcard-worthy Gulf of Alaska coastline where glacier-carved fjords and bays teeming with fish, birds, and marine mammals are framed by dense forests of hemlock and spruce and majestic mountain vistas, the Chugach Alaska Corp. region epitomizes Alaska beauty.

In addition to the immediately apparent abundance of subsistence, fishing, tourism, and timber resources, this 10-million-acre picturesque area along Alaska's southern coast is also rich in minerals. Copper, zinc, chromium, titanium, platinum, and gold are among the many metals that have been discovered and historically mined in this resource-rich area extending from Icy Bay to the tip of the Kenai Peninsula near Homer.

For Chugach Alaska, one of the 12 land-holding Alaska Native Claims Settlement Act (ANCSA) regional corporations, finding a balance between developing these minerals and other resources in the area and conservation is "driven by purpose, guided by tradition."

"A hallmark of the Chugach philosophy is our consideration for how the decisions we make today will impact the future health of the corporation," Chugach Alaska Executive Vice President of Lands and Resource Development Josie Hickel told Data Mine North. "With every decision we make, we ask ourselves whether we're creating a more valuable, sustainable Chugach for shareholders not only today, but for their children and grand-children tomorrow."

To gain an understanding of what role mining might play in this decision-making process, Chugach is investigating the mineral potential in areas of historical mining on lands it owns in the region.

National forests, parks complicate

Under ANCSA, Chugach is entitled to roughly 378,000 acres of full fee estate and 550,000 acres of subsurface estate to be managed for its shareholders.

As stewards of this beautiful and resource-rich region of Southcentral Alaska, Chugach seeks a balance between safeguarding the heritage of its roughly 2,850 shareholders, conserving the natural beauty and resources, while also ensuring economic opportunities for the people who have called this region home for thousands of years

With federal conservation areas such as the Chugach National Forest and Kenai Fjords National Park covering enormous swaths of this picturesque region, however, realizing the economic opportunities that could come from developing mineral and other resources on its lands, which sometimes lie within these national parks and forests, can be complicated.

"As many are aware, the Chugach National Forest is approximately 98% inventoried roadless from the 2000-era Clinton Roadless Rule, which frustrates our rights for access to resources where we own the subsurface," Hickel told Mining News.

Despite the frustration, Chugach Alaska seeks to work with federal land managers within the U.S. Department of Interior, which oversees the National Parks Service, and the Department of Agriculture, which is over the U.S. Forest Service.

"If we can find some symbiosis of an overall landscape management strategy that benefits our shareholders, we certainly consider that," the Chugach Alaska land and resource executive said. "Because we have a lot of the split estate concerns in areas of interest to the agencies, and also areas within designated Wilderness, or Wilderness Study areas, we are working with the departments of Interior and Agriculture for possible land exchanges that might alleviate some of these management concerns."

Landholdings in the Chugach region were further complicated following the Exxon Valdez oil spill.

Exxon Valdez Oil Spill Trustee Council acquired significant surface estates from village corporations in the Chugach region, creating split estates on lands that Chugach Alaska owns the subsurface rights.

One such split estate was Port Gravina, where the regional corporation wanted to develop a granite quarry.

"Though it was quite an effort, in the end, we were able to assert our rights as the owner of the dominant subsurface estate and our granite products will be on the market soon," Hickel said.

Granite quarry, local jobs

Port Gravina is located on Prince William Sound between the communities of Valdez and Cordova. Granite mined from this Southcentral Alaska locale could provide materials for infrastructure, development, construction, and repair projects throughout Alaska and the Pacific Northwest.

"A longer local development and shipping season could aid in the restoration of projects such as shoreline restoration and storm erosion control in Western Alaska, where some villages are at risk," said Hickel. "High-quality armor stone and rip-rap, which would be available through the Port Gravina project, are ideally suited for these types of prevention and restoration projects."

For Chugach shareholders that live in the area, the new granite business means jobs – both at the quarry and the other jobs spurred by the economic opportunities it generates.

"These jobs are greatly needed in local villages where economic development and job opportunities are limited," Hickel said. "Local hire from communities closest to the project area will be utilized to the maximum extent possible."

Projects such as this lie at the heart of Chugach's balanced strategy.

"Chugach has a responsibility to shareholders to protect our heritage and cultural practices, provide stewardship over our lands and resources and to explore economic opportunities that benefit our region and shareholders," Hickel said. "This responsibility has led us to pursue a number of opportunities on our lands, the latest being the Prince William Sound Granite Quarry."

Investigating the mineral potential

Beyond mining granite that can be used for coastal infrastructure projects near Alaska's enormous coastline, Chugach Alaska has recently resumed exploration of the other mineral resources known to exist on its lands.

While there are currently no operating mines in the Chugach region, several small underground operations produced copper, silver and other metals from high-grade ore mined from volcanogenic massive sulfide (VMS) deposits near the village of Tatitlek on Prince William Sound in the early 1900s.

While these historic mines and other prospects identified on Chugach-owned lands show promise, little exploration has been carried out in the area since the 1970s, at least until recent work by the regional corporation.

"In 2014 we did a phase one exploration program for metallic minerals on our lands in the VMS belt in the northeastern Prince William Sound, near Tatitlek," said Chugach Alaska Senior Manager of Lands David Phillips. "There has been past production of copper in the area from Ellamar, Threeman, Billy Goat, Reynolds Alaska and Schlosser mines."

While the village corporations in the Chugach region typically own surface estate and the regional corporation owns the subsurface mineral rights, the Tatitlek Village

Corp. owns both the surface and subsurface rights to lands covering some of the VMS targets in this area.

Working with Alaska Earth Sciences, an Anchorage-based geological consulting firm, Chugach investigated an area on the southeast side of the Kenai Peninsula known to host high-grade gold.

"In 2019, we began a program in the Nuka Bay District of the Kenai Fjords," said Phillips. "Chugach owns approximately 78,000 acres of subsurface estate within the boundaries of the Kenai Fjords National Park."

Chugach's 2019 exploration turned up some intriguing targets for follow-up exploration.

"We have only had a single field season in each location, but there seems to be enough interest to put together a more focused effort in certain areas," said Phillips.

The land manager said Chugach Alaska plans to explore mineral prospects that Chugach Alaska owns on Knight and Latouche Islands in Prince William Sound.

Based on work carried out in the 1970s, it is estimated that the Copper Bullion prospect on Chugach lands on Knight Island hosts 1.8 metric tons of resource averaging 0.57% copper, 42.4% iron, 0.15 grams per metric ton gold, and 3.16 g/t silver.

Latouche Island, on the other hand, hosts a major copper-producing mine from early in the 20th century. From 1908 to 1930, the Beaston Mine on Latouche Island produced roughly 182.6 million pounds of copper and 1.47 million oz of silver from 5.43 million metric tons of ore averaging 1.65% copper and 8.72 g/t silver.

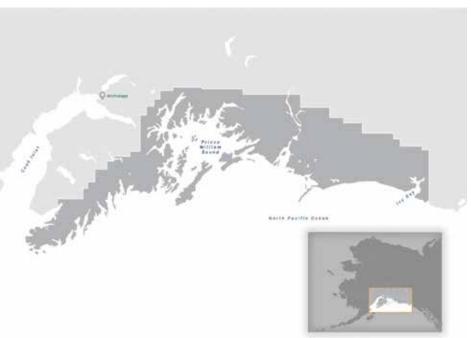
Chugach Alaska also plans to explore lands it owns within and adjacent to the Wrangell-St. Elias National Park, which hosts the historic Kennecott copper mine.

Driven by purpose, guided by tradition

Chugach Alaska decisions are "driven by purpose, guided by tradition." As such, the ANCSA regional corporation wants to have a good understanding of the mineral prospects on its lands before bringing in mining or mineral exploration companies as partners to further evaluate and advance mineral projects within its region.

For Chugach and its shareholders, it is important that any mineral exploration and mining in the region, whether on ANCSA or public land, minimize the impacts on the environmental and aesthetic values this iconic part of Alaska is known for.

"Chugach places utmost value on habitat protection given the importance of subsistence to our shareholders



and the reliance of regional communities on healthy water and land in Prince William Sound," said Hickel. "We make every effort to maintain a minimal footprint and avoid impacts to the natural habitat, and we would ask that other companies uphold this same respect toward our region."

Another thing that is important to Chugach is that any development in the region provides jobs for its shareholders that live there.

"It is fitting that the resources developed in the Chugach region benefit the Chugach people," the regional corporation penned on its website.

In addition to direct jobs at a mineral exploration camp or mine, the people of the region offer much in the way of logistical and other support.

"Many of the region's village corporations, tribes and our shareholders have businesses that provide marine transportation, cargo, and logistical services," Hickel said.

In addition, Chugach Alaska subsidiaries are ready to support development within the region.

Chugach Alaska Services, an Alaska Native-focused staffing service, is particularly well suited for supporting mineral exploration in the region and across the state.

"While our focus is Alaska's oil and gas industry, we have the resources and the talent to provide professional and highly qualified individuals to any industry of Alaska's economy," CAS wrote.

By providing economic opportunities for Chugach Alaska shareholders, conscientious mineral exploration and mining may have a role to play in Chugach Alaska's strategy to create "a more valuable, sustainable Chugach for shareholders not only today, but for their children and grandchildren tomorrow."

Cook Inlet Region, Inc. (CIRI)



CIRI real estate extends beyond Tikahtnu

Largest Southcentral Alaska landowner owns mineral potential

By SHANE LASLEY

Data Mine North

With more than half of Alaska's entire population living within its region, Cook Inlet Region Inc., more commonly known as CIRI, is the most metropolitan of the 12 landholding Alaska Native regional corporations.

While CIRI has leveraged its urban position with retail developments such as Tikahtnu Commons, an enormous retail and entertainment center on the outskirts of Anchorage, the Southcentral Alaska regional corporation also has oil and gas, renewable energy, and mining interests in and around Cook Inlet and beyond.

"CIRI is the largest landowner in Southcentral Alaska and has selected lands over the years with mineral potential," CIRI Corporate Affairs Director Ethan Tyler told Data Mine North. These mineral properties include the Johnson Tract property on the west side of Cook Inlet, one of the most exciting Alaska gold exploration stories.

And additional enticing mineral projects on CIRI lands will likely emerge in the near future.

"There has been cursory analysis of development potential on many of these lands and the company will continue to evaluate what properties might be ripe for exploration in the future," said Tyler.

Farewell, a base, precious and critical metals property in the western Alaska Range, is one CIRI-owned land package on the horizon.

Cook Inlet Land Exchange

Much like global metropolises, the CIRI region is the melting pot for Alaska's First People.

In addition to the Dena'ina and Ahtna Athabascan's

who originally settled along the shores of Tikahtnu – the traditional Dena'ina name for Cook Inlet – Tlingit, Haida, Inupiat, Yup'ik, Alutiiq, and Aleut people from every corner of Alaska have moved to Southcentral Alaska over the past century. Many of these new Tikahtnu residents became CIRI shareholders following the 1971 passage of the Alaska Native Claims Settlement Act (ANCSA).

This diversity is reflected in CIRI's corporate vision – "A corporation rooted in the heritage and cultures of our shareholders, working toward a future where Alaska Native people thrive." – which looks beyond its own regional interests and to the wellbeing of all First People across the state.

Ensuring a future where Alaska Native people thrive, however, begins with CIRI's own success and ensuring that its shareholders flourish.

One measure of this success that CIRI is particularly proud of is the well over \$1 billion in dividends and other distributions to shareholders over the years.

The Southcentral Alaska ANCSA corporation said its ability to pay out so much in dividends is rooted in "a team of young, forward-thinking people who sought to get a fair deal for their company" during CIRI's forming years.

While being located at the hub of Alaska's economic activity is something CIRI has been able to leverage to its advantage, getting a fair lands deal in Alaska's population center was a formidable challenge for CIRI's early leaders.

Upon passage of ANCSA, CIRI was entitled to 1.25 million acres of land and 2.25 million acres of subsurface estate within its region. Much of the prime real estate around Cook Inlet, however, was already in private hands, tied up by state interests, or claimed by the federal government for things like military bases.

This left CIRI with "mountaintops and glaciers" as its choices when selecting the real estate promised to form the economic foundation for the corporation.

"A lot of the land that had been prescribed for our selection by the act had already been given away... (and) the Secretary of the Interior said that since there was no other land available, CIRI would just have to make its selections from mountainous and glaciated areas around Cook Inlet," Roy Huhndorf, president of CIRI from 1975 to 1995, recalled.

Undaunted, the early CIRI leaders fought hard for the resource-rich lands they felt they deserved under ANCSA. Both federal and state landowners were reluctant to cede properties around Cook Inlet, resulting in nearly five years of court battles and negotiations for CIRI's early leadership. This tenacity resulted in the Cook Inlet Land Exchange, one of the largest land swaps in U.S. history, which laid the foundation for CIRI's success.

"CIRI's early leaders, those who negotiated the Cook

Inlet Land Exchange, saw the need to move quickly and courageously," said Margie Brown, who worked in CIRI's land department from 1976 to 1995 and served as the corporation's president and CEO from 2005 to 2012. "CIRI's mission was, and is, to generate revenue to improve the social and economic status of its shareholders for generations to come."

The work needed to fulfill this mission, however, did not end with the land exchange.

After some strategic land selections in oil and gas-rich areas of Cook Inlet, CIRI's early leaders continued to show tenacity and savvy in ensuring that the ANCSA corporation (and the state) received its fair share of royalties from oil and gas production from its lands in Tikahtnu.

"Because CIRI fought for its rightful entitlement, the company was able to select valuable lands that would,

 "CIRI's early leaders, those who negotiated the Cook Inlet Land Exchange, saw the need to move quickly and courageously."
 Margie Brown

over time, bring in hundreds of millions of dollars, providing CIRI a strong financial foundation early on," said Brown,

That strong financial foundation during CIRI's early years also helped to ensure the solvency of many of the other Alaska Native regional and village corporations around the state, thanks to special provisions of ANCSA known as sections 7(i) and 7(j).

ANCSA Section 7(i) requires regional corporations to distribute 70% of net revenues from resource development on ANCSA land among all 12 regional corporations. Under Section 7(j), half of the 7(i) payments received must be distributed to the respective village corporations within each of the ANCSA regions.

"We are not the biggest 7(i) distributor, but we were the earliest, and a significant contributor to allowing corporations to actually stay in existence," says Brown.

In addition to giving their fellow ANCSA corporations an early financial boost, the early revenues from Kenai and other oil and gas fields in the Cook Inlet area provided a foundation for CIRI's success.

"Growing a company organically is a slow slog, a hard process," Brown said. "But with oil and gas revenues coming in so early, even though we were sending a lot out by way of 7(i) distributions, the amount we kept was significant, and we could use those revenues, and we did use those for other investments, whether it was into radio and T.V. stations or real estate—they provided the underpinning that allowed us to go out and do business



More than half of Alaska's entire population lives within the CIRI region around Cook Inlet.

in other arenas much earlier than others were able to do."

High-grade gold at Johnson Tract

While the efforts of Brown and other early CIRI leaders were focused largely on securing oil and gas interests, they also picked up some interesting hardrock mineral properties.

One of these properties, Johnson Tract, has emerged as one of the most exciting mineral exploration stories in Alaska during 2019.

Situated about six miles west of Cook Inlet and roughly 125 miles southwest of Anchorage, the 20,942-acre Johnson Tract property hosts high-grade gold deposits that are further enriched by associated silver, copper, zinc, and lead.

CIRI recognized the rich mineral potential of Johnson Tract during the ANCSA land selection process and claimed this gold-rich property in 1976.

This package of private lands is situated within the Lake Clark National Park.

As part of its land selection, CIRI was granted special rights, ratified by U.S. Congress and approved by the Alaska Legislature, that ensures transportation and port easements through Lake Clark National Park for the development of the rich mineral potential at Johnson Tract.

"CIRI enabled the creation of the park with an exchange of land originally outlined in ANCSA for the Johnson subsurface and surface rights on the south tract and subsurface rights on the north tract," Tyler told Data Mine North.

In 1981, Anaconda Minerals signed a joint venture agreement with CIRI to evaluate the precious and base metals potential identified across these tracts of land.

Exploration under this JV led to the discovery of the JT deposit in 1982. The JT discovery hole cut 102.6 meters averaging 10.94 grams per metric ton gold, 8.01% zinc,

0.75% copper, 2.13% lead, and 8.5 g/t silver, including 50 meters grading 20 g/t gold, 9.4% zinc, 1% copper, 2.8% lead, and 12.7 g/t silver.

This was an enticing find, considering the high grades of multiple metals over such wide widths.

Mining this rich discovery nearly became a reality when Westmin Resources Ltd. optioned Johnson Tract in the 1990s.

Based on 88 holes drilled prior to 1995, Westmin calculated that Johnson Tract hosted 1.04 million metric tons of resource averaging 10.05 g/t gold, 7.63 g/t silver, 8.32% zinc, and 1.13% lead.

Westmin contemplated shipping ore mined from Johnson Tract to the operating mill at its Premier Mine in northwestern British Columbia. Both properties are near tidewater, which would have made shipping the high-grade ore to its already operating mill on the east side of the Gulf of Alaska fairly inexpensive.

Weak gold prices at the time, however, made the plan infeasible and Westmin's lease on this highly prospective property expired.

After being lost to obscurity for two decades, Johnson Tract reemerged on the Alaska exploration scene with HighGold Mining Inc. entering into a lease agreement with CIRI in 2019.

The lease agreement between HighGold and CIRI has an initial 10-year term for the exploration and other studies needed to advance the gold-rich project to a mine construction decision, followed by a five-year development term, and then a production term that will continue for as long as mining continues.

Minimum exploration expenditure and annual lease payments are required to maintain the lease until production. Considering the large exploration programs already carried out by HighGold, however, the \$10 million minimum exploration requirement is now a moot point.

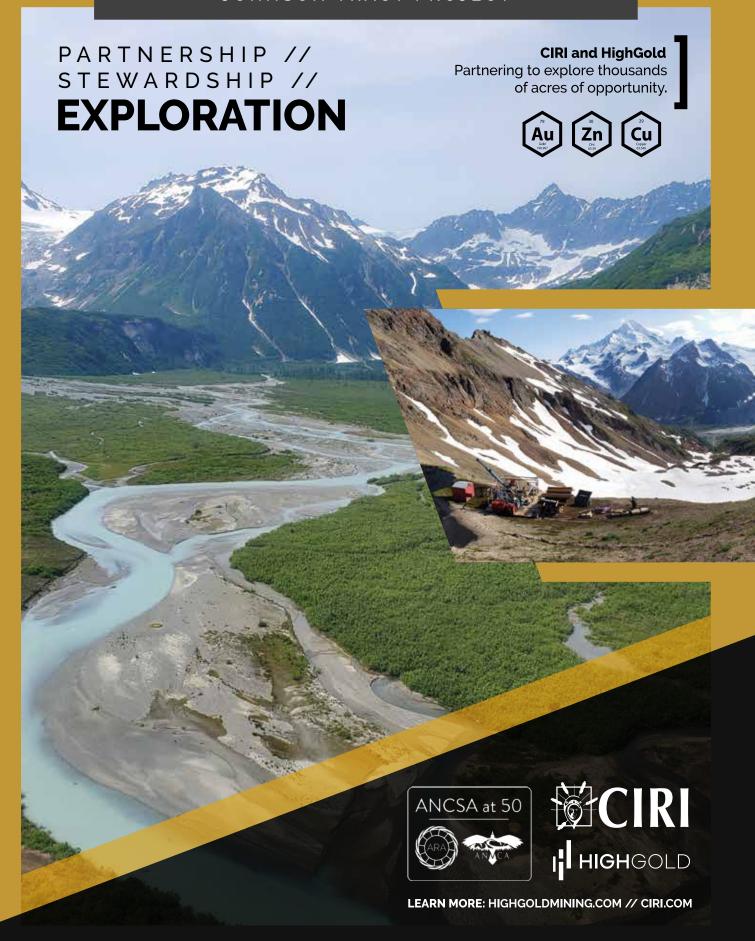
"We already exceeded that," said HighGold Mining CEO Darwin Green.

Based on just the first nine holes drilled in 2019, the JT deposit at Johnson Tract hosts 2.14 million metric tons of indicated resource averaging 6.07 grams per metric ton (417,000 ounces) gold, 5.8 g/t (397,000 oz) silver, 5.85% (275.3 million pounds) zinc, 0.57% (26.8 million lb) copper, and 0.71% (37.6 million lb) lead.

During 2020, HighGold completed roughly 17,000 meters of drilling and is on pace for another 20,000 meters this year. This exploration is both expanding the already identified deposit and testing multiple prospects across this rich mineral land early CIRI leaders had the foresight to claim and secure access to.

CIRI maintains certain net smelter return royalties and a back-in right for up to a 25% participating interest in Johnson Tract at the time a decision to develop a mine on the polymetallic gold project is reached.

JOHNSON TRACT PROJECT





Beyond Johnson Tract, Tikahtnu

Johnson Tract is not the only underexplored CI-RI-owned mineral property with significant upside potential.

One of the most promising of these properties is Farewell, a property about 160 miles northwest of Anchorage, where a wide variety of precious and base metals have been identified.

Two holes drilled by Anaconda Mining in the 1980s encountered high-grade skarn mineralization at Dall, one of the targets identified at Farewell. One of these holes cut 3.5 meters averaging 11.8 ounces per metric ton (367 g/t) silver, 4% copper, and 1% zinc; the other cut 5.5 meters of 5.7 oz/t (177 g/t) silver, 0.9% copper, and 6% zinc.

Sampling of another Farewell prospect about three miles southeast of the Anaconda holes identified similar mineralization. The average grade of 20 rock samples collected from an outcropping skarn at this target averaged 2.3% copper, 3.4 g/t gold, 33 g/t silver, 0.16% nickel, and 0.07% cobalt.

Both cobalt and nickel are vital ingredients in the lithium-ion batteries used to power electric vehicles and are on the list of metals that the U.S. Geological Survey have deemed critical to the United States.

Airborne geophysical surveys flown over this area in 2008 identified magnetic and electromagnetic anomalies associated with the metals found at surface, indicating a potentially large system rich in precious, base, and critical metals.

CIRI owns both the surface and subsurface rights to this roughly 155-square-mile property beyond the Tikahtnu area.

Farewell is not the only CIRI-owned property with critical metals. In fact, the ANCSA regional corporation's

Red Mountain land package near the southern tip of the Kenai Peninsula hosts a historic mine that provided the U.S. with a domestic source of chromium during both World Wars.

Chromium-rich mineralization was discovered in the Red Mountain area around 1910 and some limited mining occurred there during World War I.

Knowing Red Mountain could provide a domestic source of chromium during World War II, the U.S. Bureau of Mines drilled more than thirty holes to evaluate this chromite-rich area near the Southcentral Alaska town of Seldovia. This exploration resulted in development and mining at Chrome Queen and other orebodies discovered over a four-mile-long area at Red Mountain.

From 1943 through 1958, an estimated 26,000 short tons of ore averaging roughly 40% chrome oxide was mined from Chrome Queen and other mines at Red Mountain

Past investigations have identified 33 deposits at Red Mountain that contain an estimated 1.5 million tons of chrome oxide.

A vital ingredient in stainless steel and superalloys, the U.S. Geological Survey considers chromium "one of the nation's most important strategic and critical materials." As such, chromium is on the USGS's list of 35 minerals and metals considered critical to America's economic and national security.

Whether it be critical metals within the CIRI region or base and precious metals beyond Tikahtnu, CIRI invites companies with excellent reputations for responsible exploration and development to take a closer look at the mineral-rich lands they have to offer.

"We welcome partnerships with companies with solid reputations as good operators who produce results," Tyler said.

Doyon Limited



Partnerships unlock golden Doyon potential

Interior Alaska ANCSA corp. owns vast lands, mineral potential

By SHANE LASLEY

Data Mine North

It is hard to quantify which is more impressive, the sheer size of the estate owned by Doyon Ltd. or the rich and underexplored mineral potential on the lands owned by the Alaska Native Claims Settlement Act regional corporation for Alaska's Eastern Interior.

Running the breadth of Alaska between the Brooks Range to the north and Alaska Range to the south, the Doyon region blankets a mineral-rich swath of Alaska's Interior that is nearly the size of Texas.

Doyon owns 12.5 million acres of land within this vast region, making it the largest private landholder in Alaska and one of the largest in North America.

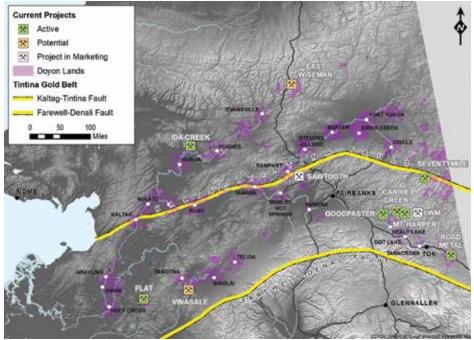
Over the nearly 140 years since sourdough prospectors first found gold in the streams of Interior Alaska, nearly 30 million ounces of placer and hardrock aurum have been mined in the Doyon region. Most of this gold has been recovered from Alaska's section of the Tintina Gold Belt – a 125- by 750-mile province that arcs

from northern British Columbia, through the famed Klondike and White Gold districts in the Yukon, and across the breadth of the Doyon region.

In addition to an enormous gold endowment that has yet to be fully realized, the Doyon region hosts a wide range of base, critical, and other precious metals - antimony, cobalt, copper, chromium, nickel, platinum group metals, rare earths, silver, tin, tungsten, and zinc are among the



Aaron Schutt



DOYON LTD.

metals for which this region is renowned.

This provided Doyon and village corporations within its region with a broad array of mineral-rich properties to choose from following the passage of ANCSA in 1971.

"We selected many of our properties ... because of mineral potential," Doyon President Aaron Schutt said during a 2020 online breakfast presentation hosted by Resource Development Council for Alaska.

These lands, coupled with a diverse array of businesses and joint ventures, are helping Doyon meet its primary objectives – ensuring the economic well-being of more than 19,500 current shareholders; honoring the traditions handed down by those that came before; and safeguarding a rich inheritance for future generations.

"Of course, we're proud of our strong performance and our reputation in Alaska and beyond," Doyon penned in a statement on its website. "But watching our community of shareholders grow and flourish as a result – that's our real point of pride."

To help foster further growth within the region, Doyon has become increasingly proactive in unlocking the vast mineral potential across its equally impressive landholding in Interior Alaska.

This includes leasing several gold exploration properties and investing in Tectonic Metals Inc., a gold exploration company led by a team known for their exploration success and working closely with local communities.

"We are really excited about the partnership and work being done on Doyon lands," said Schutt.

Tectonic partnerships

The forging of an increasingly strong partnership between Doyon and Tectonic began shortly after Kaminak Gold Corp. sold the roughly 5-million-ounce Coffee Gold project in Yukon's section of the Tintina Belt to Newmont Corp. in 2017 for C\$520 million.

Following the sale of Coffee, several of Kaminak's executives teamed up with Alaska geologist Curt Freeman to create Tectonic Metals, a mineral exploration company primarily focused on the vast and underexplored potential of Alaska's portion of the Tintina Gold Belt.

For Tectonic, talking with the largest private owner of mineral-rich lands in the Tintina Belt was an obvious choice.

"Early engagement as we all know is imperative, and you cannot get any earlier than by working directly on Native-owned land at the onset,"

Tectonic Metals President and CEO Tony Reda told Data Mine North.

So, it is no surprise the two of Tectonic's first Alaska gold exploration properties – Seventymile and Northway – are part of Doyon's enormous estate.

In 2018, Tectonic and Doyon signed milestone agreements that cover every stage that might be reached on these properties, from exploration through mine development and production. These discovery-to-production agreements for Seventymile and Northway provide surety to everyone, including a future partner who might want to mine the deposits of gold and other metals discovered.

While exploration carried out more than two decades ago demonstrated the gold potential at Seventymile and Northway, tough market conditions cut short past programs before this prospectivity could be fully realized.

After two summers of surface exploration and geophysics at both Doyon properties, Seventymile emerged as the primary target for drilling to define on the Doyon lands leased by Tectonic

Situated between two prolific placer gold mining districts – Yukon's Klondike to the east and Alaska's Circle Mining District to the west – Seventymile is a large land package where previous exploration has shown the potential for multiple gold deposits.

While gold has been identified across the breadth of this Doyon-owned property, the 8,000-meter-long Flume trend is one of the most intriguing targets at Seventymile.

Previous drilling has encountered high-grade mineralization across this trend, including 1.1 meters averaging

187.9 g/t gold and 44.2 meters of 1.34 g/t gold.

With new geological ideas, Tectonic carried out early staged exploration at Seventymile during the 2018 and 2019 field seasons in preparation for an initial 26-hole drill program targeting six highly prospective Flume trend targets - Flanders, East Flanders, Deep Creek, Bonanza Creek, and Flume-Bonanza Link.

Highlights from this 2020 drilling include: 19.81 meters averaging 1.37 g/t gold; 6.1 meters averaging 2.07 g/t gold; and 4.57 meters averaging 1.2 g/t gold.

Tectonic says its exploration at Seventymile has both validated and proven continuity of the mineralized structures across the Flume trend, and follow-up drilling on five Flume trend targets is being carried out this year.

Unprecedented deals

Tectonic's ability to advance its work at Seventymile and other Alaska gold properties during the uncertain markets brought on by the COVID-19 pandemic was bolstered by an unprecedented investment by Doyon.

In a deal that benefits both parties, Doyon acquired 10.5 million Tectonic shares for US\$1.5 million. With this investment, the ANCSA regional corporation owns a roughly 15% in the gold explorer and enough warrants to increase its interest to around 18%.

This 2020 investment strengthened the already close partnership and provided Tectonic the capital to continue exploration during the global social and economic upheaval brought on by the COVID pandemic.

"We are honored and excited to have Doyon as a share-

holder and partner as we continue our endeavor to be a pioneering mineral exploration company committed to high standards of environmental stewardship, early and ongoing community engagement, and maximizing social and economic benefits to the communities in which we live and operate in," said

Schutt said there were several reasons behind Doyon's decision to become a strategic partner and the single largest shareholder of Tectonic.

"We saw the work they have done with the First Nation communities in the Yukon, just across the border; we saw the geologic success and the creativity they have on their team; and we

talked about ways to get more done on Doyon land, and that resulted in Doyon making a direct investment in Tectonic in April of 2020," he said.

Doyon and Tectonic further strengthened their partnership with a long-term exploration, development, and production lease on 65,600 acres of Doyon lands near Tibbs, a gold property Tectonic is exploring on state lands within the Goodpaster Mining District.

These new properties include Carrie Creek, 15,800 acres of Doyon lands divided into two blocks immediately north and south of Tibbs, and Mount Harper, a 49,800acre polymetallic exploration property about 10 miles southeast of Tibbs.

Much like the two properties Tectonic previously leased from Doyon, there has been no exploration at Carrie Creek and Mount Harper in more than two decades.

Carrie Creek, which consists of two land packages north and south of Tibbs, host at least three styles of gold mineralization reminiscent of the high-grade gold at Northern Star Resources' nearby Pogo Mine, lower grade bulk tonnage gold like Kinross Gold's Fort Knox mine near Fairbanks, and mineralization similar to what Tectonic is exploring at Tibbs.

Situated about 10 miles southeast of Tibbs, Mount Harper hosts several prospects and styles of mineralization – tungsten skarn, quartz-molybdenum veining, porphyry molybdenum-copper, and structurally controlled silver-lead-zinc mineralization.

The new geological models successfully applied at Tibbs have already helped Tectonic geologists begin to unlock



the potential of these Doyon properties, including visible gold in rocks picked up on the southern Tibbs property.

Wider gold potential

The properties leased by Tectonic are far from the only gold-rich lands owned by Doyon. In fact, one property owned by the Interior Alaska ANCSA corporation, Vinasale, boasts a deposit with well over one million ounces of the precious metal.

Located about 16 miles south of McGrath, a Southwest Alaska mining town that has been a hub for the area for more than a century, Vinasale hosts an intrusive related gold deposit reminiscent of Fort Knox, a Doyon region mine that has produced well over 8 million oz of gold.

According to a resource calculated in 2013, Vinasale hosts 3.41 million metric tons of indicated resource averaging 1.48 g/t (162,000 oz) gold; plus 53.25 million metric tons of inferred resource averaging 1.05 g/t (1.8 million oz) gold.

Flat, located in a placer gold-rich district about 60 miles southwest of Vinasale, is another intriguing gold property owned by Doyon.

While at an earlier stage of exploration, the Flat property covers 22,000 acres considered to be the likely lode source of two creeks – Flat and Otter – that are estimated to have produced more than 830,000 oz of placer gold since 1909. When you add in other creeks in the Flat area, this total is more than 1.3 million oz of

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alluvial gold.

Historical drilling at Flat shows the high-grade and bulk tonnage potential of this project, including one hole that cut 21.3 meters averaging 13 g/t gold and another that cut 376.6 meters averaging 0.68 g/t gold.

It has been estimated that 4 million oz of gold could be delineated with additional drilling at Flat. On Sept. 28, Tectonic entered into an agreement to lease the intriguing Flat gold project from Doyon.

While Vinasale and Flat are west of Alaska's road system, many of Doyon's mineral properties are much closer to infrastructure.

Sawtooth, located about 65 miles northwest of Fairbanks and just north of the Elliott Highway, is one such property.

A five-mile trend running across the more than 50,000-acre Sawtooth property hosts several prospects with the potential to be the type of gold deposit for which the Tintina Gold Belt is renowned.

Soil sampling at one such prospect, Saddle, has outlined a 3,000- by 4,000-meter gold anomaly. Rock samples collected from this area have assayed as high as 4.1 g/t gold.

Nenana, a more recent gold prospect identified on Doyon land, is even closer to Alaska roads. Located about 30 miles southwest of Fairbanks, the grassroots prospect is on the Doyon's Parks Highway Tract, named for the paved highway that cuts through the middle of the property.

The Interior Alaska Native corporation said sampling has defined areas of coincident gold and trace element anomalies at Nenana that are reminiscent of the geochemical signatures of the multi-million-ounce Ryan Lode, True North, and Fort Knox gold deposits to the northeast.

In addition, the Nenana prospect lies along a trend of magnetic anomalies that extends southwest from these intrusive-related gold deposits in the Fairbanks Mining District

Combined, the geochemistry and geophysics suggest that further exploration could turn up the type of large gold deposit the Tintina Gold Belt is known for.

More than gold

While the Doyon region is best known for its gold, properties owned by the Interior Alaska Native corporation host a wide variety of precious, base, and critical metals.

This includes Tofty, a tin-rare earths-gold property that lies along the newly built road to Tanana.

A 12-mile-long belt in the Tofty area is known for the large quantities of placer tin found in the streams. Doyon's 5,000-acre Tofty property hosts a potential hardrock source of this alluvial tin, as well as several other minerals considered critical to the United States.

Out of the eight holes drilled at Tofty, one cut 48 meters of magnetite-rich, niobium-bearing carbonatite with minor amounts of rare earths and yttrium.

NW Rampart, which is northeast of Tofty and about 26 miles west of the Dalton Highway, is a newly recognized prospect with nickel, chromium, and platinum group metals.

Considered a Norilsk-type target, sampling at NW Rampart has returned up to 1,190 parts per million nickel and 2,060 ppm chromium, with peripheral prospects containing gold and platinum metals.



The Pedro dredge near the town of Chicken is a reminder of the rich placer gold in the streams of the Fortymile Mining District in eastern Alaska. In addition to gold, Doyon lands in this area host zinc, lead, silver, and copper.

A geophysical survey shows several miles of prospective ground in this newly recognized target area at NW Rampart.

While the Fortymile District just across the border from Yukon's Klondike is best known for its placer gold, Doyon owns well over 100,000 acres of land in this area rich in zinc, lead, and silver.

Known as LWM-Fish, this property about 35 miles west of the Taylor Highway hosts 14 known carbonate replacement-style occurrences along a 50-mile trend. The most advanced of these is the LWM deposit, where 86 core holes have defined a more than 1,000-meter-long zone of zinc-rich carbonate replacement mineralization.

One hole drilled in 2010 cut 4.4 meters of 23.71% zinc. 23.63% lead, and 314.2 g/t silver.

Doyon also owns a large base metals property just south of the Brooks Range that is rich in base metals, though richer in copper than zinc.

Known as East Wiseman, this property situated just five miles off the Dalton Highway covers the Chandalar Copper Belt, a region where around a dozen volcanogenic massive sulfide, skarn, and porphyry copper prospects have been identified.

Luna, a VMS prospect at East Wiseman, has been traced along a three-mile trend. Assays as high as 3.4% copper, 3.1% zinc, 37.3 g/t (1.2 oz/t) silver, and 0.31 g/t (0.01 oz/t) gold over 9.1 meters.

Evelyn Lee, a skarn prospect southeast of Luna, also hosts intriguing copper.

Two shallow drill holes there cut 5.5 meters grading 2% copper and seven meters assaying 3.5% copper, both holes bottomed in mineralization.

A 2.1-meter channel sample in the same area returned 9.9% copper and 8.17 oz/ton silver.

Committed mineral partner

As extensive as these properties are, they do not represent all the mineral lands Doyon has to offer – an inventory that will likely grow as the Interior Alaska ANCSA corporation continues to collect more information on its portfolio.

These other properties host attractive base and precious metals in the Fortymile District, along the Yukon River and near several of the villages across Alaska.

Doyon recently completed an extensive review and integration of all available geophysical data and public and private prospect data sets for several of the most highly mineralized and accessible blocks. This has defined several additional prospect areas and an enhanced understanding of mineralization styles on the known targets, providing the information needed for more effective exploration programs going forward.

This enhanced database provides explorers more robust targeting information for expanding the existing resource at several prospects; new regional exploration opportunities on several properties in Doyon's portfolio; and better definition of drill targets on many of the properties the company has to offer.

Doyon's long history of doing business with majors, junior and private mineral exploration companies means the Interior Alaska Native corporation brings realistic expectations to structuring agreements and designing exploration programs on its properties to the negotiating table.

And any company that cuts a deal with the largest private landholder in the Tintina Gold Belt knows their land position is secure and they have a partner committed to mineral development.

Doyon Companies

Doyon - Leader in all we do

"Leader in all we do" is the corporate vision of Doyon, the Alaska Native Claims Settlement Act (ANCSA) regional corporation for Alaska's Interior.

This high standard is motivated by a desire to see its shareholders flourish; traditional ways thrive; and ensure a rich inheritance for future generations of shareholders.

This vision for excellence extends to Doyon's family of companies. These subsidiaries provide a wide range of services, including catering, facility maintenance, security, tourism and support for oil, gas, and mining construction across Alaska.

Here are Doyon companies that provide services to Alaska's resource sectors:



Doyon Natural Resources Department manages the ANCSA regional corporation's 12.5 million acres of lands across a region of Interior Alaska the size of France. These lands are rich with world-class deposits of gold and base metals, as well as sedimentary basins favorable for oil and gas deposits. The department also manages more than 40 material sites in the Doyon region that can provide sand, gravel, and rock for large-scale, community, and individual shareholder projects. The department's alluvial placer gold program encourages exploration and responsible third-party development of alluvial gold deposits within Doyon lands. Doyon Natural Resources also seeks experienced, capable companies to conduct hardrock base and precious mineral exploration on Doyon lands. The Interior Alaska ANCSA regional corporation maintains a library containing 45 years of work summary reports from all exploration projects on Doyon land and select core samples are available for viewing.

Doyon Drilling Inc. operates eight unique oil and gas land drilling rigs that are specially designed to drill oil wells in extreme conditions such as those found on Alaska's North Slope. DDI currently has more than 300 employees, with the main office located in Anchorage, Alaska. The drilling company has demonstrated a commitment to remain competitive in the industry by continually reinvesting in the resources, employees, and rigs. This has resulted in several industry firsts: DDI's Rig 9 was the first self-propelled, wheel-mounted rig developed for Alaska's North Slope; Rig 141 is the only land-operated rig to drill five winter exploration wells in a single season for three consecutive years; and DDI



is the first drilling company on the North Slope to use highline power and dual-fuel turbines. Doyon Drilling is a proven leader in drilling technology, environmental awareness, safety, and profitability.

Doyon Remote Facilities & Services provides clean, comfortable, contemporary accommodations and camp services to industries in remote locations throughout Alaska. Understanding that a high standard of living improves morale, resulting in improved productivity and lower costs,



Doyon Remote Facilities & Services endeavors to make its camps as welcoming as possible. DFRS can also provide other services such as project management, manpower, office space, power generation, and sleeper units.

Doyon Anvil provides Alaska-based engineering, procurement, and consulting services and a knowledge of Alaska client's needs. This includes a full suite of multi-discipline engineering and design, process safety and risk management, project management, and con-



struction support services. Through the joint venture between parent companies Doyon Ltd. and Anvil Corp., Doyon Anvil has provided successful and quality engineering and project management services to the oil and gas industry for 48 years. This provides the engineering and consulting firm with extensive cold weather, arctic design, and North Slope experience.

Doyon subsidiary companies also provide information technology services, pipeline construction, contracted services to the federal government and manage operations in the tourism industry.

Koniag Incorporated



Large resources enrich Koniag lives

From majestic Kodiak brown bear to a 100-year granite quarry

By SHANE LASLEY

Data Mine North

The Koniag Inc. region covers the Kodiak Archipelago, a group of islands off the southern coast of mainland Alaska better known for their enormous brown bears than vast mineral potential.

The Alutiiq people that arrived on Kodiak, Afognak, and surrounding islands more than 7,500 years ago were skilled mariners who were deeply connected to the ocean for food and supplies.

Over the millennia, these roaming seafarers settled into whaling and fishing villages that sheltered extended families living in large, multi-roomed sod houses. Developing more proficient hunting tools, catching more fish, and learning better techniques for processing and storing foods, the Alutiiq began organizing community labor and

formed chiefdoms.

To maintain their high standing and obtain goods not readily available near their villages, the chiefs would travel around the Kodiak Archipelago and to the Alaska mainland to visit and trade.

These journeys were often made in huge open skin boats loaded with the rich resources Kodiak had to offer – hard black slate, red salmon, bear hides, and spruce root – to be traded for mainland goods such as antler, ivory, horn, animal pelts, and exotic stone.

Peaceful trade and diplomacy, however, were not always the intent of these quests. Sometimes, chiefs initiated raiding parties, traveling hundreds of miles to avenge insult and invade rival communities for plunder and slaves.

During the dark winter months, the bounty of summer harvest, trade, and conquest was invested in the community through public displays of chiefdom prowess.

The winter months were also a time for celebration through festivals organized by priests and shamans.

By honoring the events of the year, displaying their wealth through lavish feasts and gift-giving, honoring ancestors, and thanking the spirit world, the Alutiiq elite preserved their status and provided for the economic, social, and spiritual needs of their communities.

Today, the Koniag regional and ANCSA village corporations in the Kodiak region serve in much the same role as the traditional chiefdoms – working for the economic, social, and even spiritual health of its shareholders.

"Koniag achieves financial growth, honors our culture, protects our lands, advocates for our communities, and makes a meaningful impact on our Koniag family," according to the regional corporation's website.

Alutiiq values guide Koniag

Rooted in Alutiiq values and guided by its more than 3,800 shareholders, Koniag's business strategy has evolved to meet challenges and to take advantage of arising opportunities.

To ensure shareholders, vendors, and business partners understand Koniag business strategy and goals, its board of directors defined five core values:

- Planning for the long term Koniag intends to be a "forever" corporation through land stewardship, stakeholder education, shareholder benefits, and prudent investment of financial assets.
- Honoring its heritage and culture knowing that individuals with a strong cultural identity have a sense of

belonging and positive self-esteem, Koniag is committed to sustaining its Alutiiq culture and language.

- Embracing diversity from shareholders living in Kodiak villages to those in large cities around the world, Koniag embraces its diversity and recognizes that as a source of strength.
- Being open and honest As a corporation, Koniag's foundation is built on long-term business relationships based on openness, honesty, and mutual trust.
- Having pride in its work cherishing a reputation built on an ethical foundation, Koniag enjoys hard work and takes work seriously but strives to be humble enough not to take itself too seriously.
- Sharing the catch Koniag values the individual contribution of employees and stakeholders and strives to enrich the lives of shareholders and their families through robust benefits and services.

"The Alutiiq value of caring for our community is embedded in everything that we do – every service, decision, and investment is a reflection of our commitment to living our culture," the corporation explains. "Koniag will continue to celebrate our traditions and values, protect our lands, advocate for our communities, and enrich the lives of our shareholders, descendants, and employees at every turn."

The corporation's investments range from real estate holdings, resource development, and business operations that include oversight of over a dozen subsidiaries.

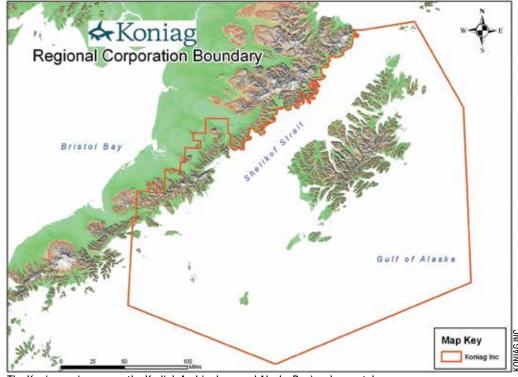
"Our priority right now is to grow our business through supporting our existing operating companies, including those in resource development," Koniag

President Shauna Hegna told Data Mine North.

These companies provide a wide range of services from premier Kodiak brown bear viewing to the sophisticated industrial services offered by Glacier Services Inc. and Dowland-Bach.

GSI is a leading provider of automation services for industrial purposes, including oil producers on Alaska's North Slope, and Dowland-Bach supplies stainless steel materials and control systems for companies around the world.

"Together they coordinate to offer the only fully vertically integrated supplier of automation and controls systems in Alaska," Hegna said. "GSI and Dowland-Bach



The Koniag region covers the Kodiak Archipelago and Alaska Peninsula coastal areas.





offer local expertise to Alaska partners in the mining industry and beyond."

Chromite-rich Border Fault

While the Kodiak Archipelago is not renowned for its mineral potential, this does not mean the Koniag region is bereft of mineral prospects. For example, chromite, a mineral that has been deemed critical to the United States, has been historically identified in five mafic or ultramafic complexes on Kodiak and Afognak islands. Two other critical mineral commodities – tin and platinum group metals – and gold have also been found on the islands.

These mineral occurrences are primarily found along the Border Range fault, a major structure known to host chromite-PGM-gold deposits on the Kenai Peninsula that runs across the entire northwest margins of Afognak and Kodiak islands.

The U.S. Bureau of Mines investigated the chromite occurrences and deposits on Kodiak and Afognak as part of a larger 1980s program aimed at identifying domestic

sources of strategic and critical minerals.

The Halibut Bay area at the western end of Kodiak Island is the most intriguing chromite-bearing section along Kodiak Island's section of the Border Range fault. Bureau of Mines identified 11 surfacing chromite occurrences over a roughly 10-square-mile region to the west of Halibut Bay. From surface observations, Bureau of Mines geologists Jeff Foley and James Barker estimated that this area contains at least 210,000 short tons of chromium oxide based on observations at the surface.

Samples collected from Halibut Bay also contained small amounts of gold, platinum, palladium, copper, nickel, and cobalt.

The Halibut Bay chromite occurrences, however, are found within the Kodiak National Wildlife Refuge, a large area set aside to conserve habitat for the distinct Kodiak brown bear population.

In fact, most of the chromite and other mineral occurrences identified so far along the Afognak and Kodiak islands section of the Border fault fall within Kodiak bear protection areas.

Koniag mining

While much of the Kodiak Archipelago is preserved for the iconic bears, there are areas available for development, and Koniag has one mining operation of its own – the Kodiak Granite Quarry, which has provided quality granite to coastal Alaska construction projects.

"Material from the quarry has been used for the Chignik Ferry Dock, the Homer Spit, the Seward Breakwater project, the Port Lions Breakwater and Ferry Dock projects, and more," Hegna told Data Mine North.

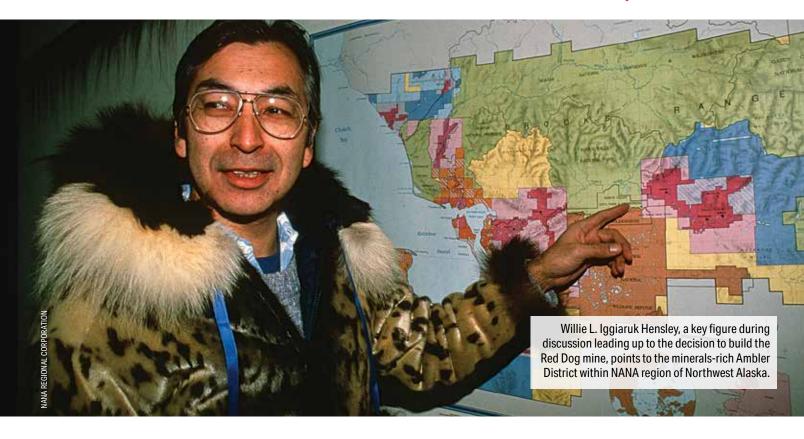
With a large deposit of granitic rock suitable for marine and road construction, Kodiak Granite Quarry has the capacity to produce 250,000 tons of armor stone, riprap, crushed aggregate, and other granite products per year for a century.

"With ice-free water and expansive infrastructure, the quarry can supply quality product year-round, and has an estimated life of over 100 years," the Koniag President said.

The ANCSA regional corporation also owns lands that may have mineral potential, including a block on the northwest side of Kodiak Island that is crossed by the Border Range fault. Koniag is open to responsible mineral exploration on its lands.

"Many of our shareholders live on Kodiak Island, and first and foremost we strive to be good stewards of our lands," said the Koniag president. "With that said, we are always open to opportunities to explore for minerals or oil and gas."

Guest Column - Corporate Tool



Alaska Natives utilize new corporate tool

More mining land might be available if pioneers understood Natives

By WILLIAM L. IGGIAGRUK HENSLEY **Guest Writer**

Pioneer Alaskans swore that Alaska's economy would be destroyed if "the Natives" secured control of any lands in Alaska. However, they did not realize how practical and pragmatic Alaska Natives have had to be to survive and thrive in their Arctic homeland. Whatever tool was needed to survive, Alaska Natives created it with the minimal materials at hand—skin, wood, stone, jade, copper, seashells, mud, plants, flint, obsidian, snow, and ice.

With the settlement of Alaska Native Claims, the Congress offered a corporation. Here is another tool that we can utilize.

Without hesitation, Alaska Natives from one end of the four time zones to the other began to learn about the idea of a corporation and began to put life into it as a vehicle to improve their economic and social conditions.

Hunters, elders, housewives, laborers, schoolteachers, national guardsmen, carpenters, preachers, and Vietnam veterans were elected to boards of directors and hired staff, rented or built offices, to begin selecting their lands and finding local business to provide services and

The learning curve was steep, but as time went on, they began to understand and learn from their mistakes and successes.

NANA goes to work

Before the land claims legislation passed, I had convinced my nephew John Qipqinia Schaeffer Jr. to leave his secure position with the National Guard in Nome to come home to Kotzebue and work for Northwest Alaska



Native Association, a non-profit we had created in 1966 to pursue the land claims settlement.

We had managed to turn a \$10,000 gift from the Episcopal Church into \$40,000 with the help of a consultant. Our region had a year head start to try to explain to our village members what the outlines of the land claims settlement was looking like and hit the ground running when the act passed.

John was selected to be the first President of NANA Regional Corporation (NANA), and we began the process of selecting land and setting up local businesses to employ our people. From the beginning, NANA's leadership was committed to creating job opportunities for our shareholders and ultimately, the primary reason we were willing to consider mining.

Modernization required income for outboard motors, fish nets, snow machines, gasoline, ammunition, store-bought food and clothing, expense money for boarding school sons and daughters.

Despite virtually no experience in business, we charged ahead and invested in a hotel in Kotzebue, in fish processing in the summer, a jade manufacturing operation, and eventually owned 10,000 head of reindeer. We built the NANA Museum to showcase our culture

and provided a place for our elders and youth to perform and sell artwork to the tourists. Later we expanded into oil field service businesses in Prudhoe Bay – accommodations and food service, electrical distribution, security, equipment rentals, and a large solid waste and sewage treatment facility as well as construction and operation of oil and gas drilling rigs.

Mining in NANA DNA

By the time ANCSA was settled, and NANA was formed, the Northwest Arctic region was already familiar with the challenges and opportunities offered by mining.

In 1898, the Penelope sailed into Kotzebue Sound with a load of prospectors from California who had heard that there was gold in our region. Eventually, 30 ships came with thousands of men scouring the creeks and hills looking for gold. Some gold was found, but the discovery of gold in Nome eclipsed this effort. Yet mining became a part of our regional DNA as some of the unsuccessful gold-seekers remained to marry Inupiat women and have large families and lived their lives out among their loved ones.

Gold also brought disease, gambling, prostitution, and alcohol, but it also provided jobs and training for those of our

people who were willing to make the effort.

Many stories emerged in the Upper Kobuk and along the Squirrel River as the miners interacted with our people and learned the ways of survival in the Arctic. They also learned of the Inupiaq prophet Maniilaq who predicted many life-changing events that are slowly emerging in our region—flight, the internal combustion engine, the coming of the White man, wireless communication. He also predicted the growth of a large city in the Upper Kobuk—one of the few predictions that has not yet become a reality.

Gold was discovered in the Candle area in 1901 on the Seward Peninsula and many of our people worked for various mining companies until the gold and population petered out in the 1960s. Inupiat workers traveled to Nome to work in the gold fields during the decades following the discovery in 1898 and other locations on the Seward Peninsula. Many became expert equipment operators, mechanics, and drivers.

Red Dog agreement

In spite of our history of being exposed to mining, the reality of the Red Dog mine was not assured.

Bob Baker, a Kotzebue bush pilot, reported the orange stains in the mountains to Irving Talleur with the USGS in the 1960s.

When geologists from the mining company WGM spoke to our NANA staff to explain what they knew about the mineral potential in the area, they were concerned that only the Inupiat could keep that land from being put into the contemplated Noatak National Preserve. There was literally a war going on after the passage of ANCSA between the empire-building segments of the national government—the BLM, Fish and Wildlife Service, National Forests, and the National Park Service.

In the meantime, Cominco, a Canadian mining company, had managed to stake claims in the area being selected by NANA during a lull in the "land freeze." Litigation was about to ensue. However, Cominco decided to invite John Schaeffer, President of NANA, myself, and John Shively to come up to the prospect where we visited the site, including the heavily mineralized Red Dog Creek. That site visit precipitated a trip to D.C. by John Shively, on NANA's behalf, to discuss with federal officials our list of "wants" as the status of federal lands in the area were being determined. Mining came in last behind issues such as Native allotments, reindeer grazing, and subsistence.

Mining was not high on our list at the time. Cominco was persistent and experienced in Arctic mining and was modest, and could communicate with our staff and the mining committee that the NANA board established. Visits were made to mines in Canada and Greenland. Eventually, in 1982 NANA and Cominco signed a lease agreement that has since become a model for development of indigenous lands worldwide.

Uplifting Northwest Arctic, Alaska

NANA's decision to select the lands that now comprise the Red Dog Mine has had huge positive results for NANA and our shareholders, as well as financially uplifting all the 12 regional corporations and 175 village corporations.

NANA has retained over \$800 million and distributed about \$1.6 billion under the revenue sharing provision of the act. It is clear to all the village corporations that Red Dog's mine life goes to 2031. After that, many village corporations will struggle financially. That is how important Red Dog has been for the past 35 years.

For NANA, Red Dog has enabled it to not only train and employ its shareholders (some now in their third generation of mineworkers) but also to diversify into other

>> "I often muse that if Alaskan businessmen and miners had had open minds about the ability of Alaska Natives to adjust to circumstances, how much better off we would all be had they worked with us to secure another ten or fifteen million acres." -William L. Iggiagruk Hensley

business arenas. Without Red Dog Mine, there would be no way that we could have formed the Northwest Arctic Borough with the region-wide planning and services that it provides, including the construction of village schools.

With the help of Governor Bill Sheffield, in spite of opposition, we were able to secure from the Alaska Industrial Development and Export Authority (AIDEA) \$175 million for the construction of the port and road. Since the opening of the mine, the State of Alaska has received





A 1986 ground breaking ceremony to mark the start of construction of a port for the Red Dog zinc mine in Northwest Alaska. Left to right: Frank Ferguson; former Alaska Gov. Bill Sheffield; former Alaska Sen. Al Adams; former Alaska Sen. Willie Hensley; and John Qipqinia Schaeffer Jr. .

over \$1 billion from their investment.

What enabled NANA to move ahead with Red Dog was the huge effort to communicate with the shareholders in the villages. The region was united in knocking down the obstacles: securing a good agreement with a company that recognized our values; passing a state law that enabled our people to be employed on the port and road construction project; securing a Congressional law that enabled a land trade for the road through Krusenstern National Monument; and detaching the mine area from inside the North Slope Borough, allowing for the formation of our own Northwest Arctic Borough. All these challenges were met and resolved.

Mining rejuvenates rural Alaska

The next challenge is whether the mineral potential in the Ambler district will become a reality.

NANA, Ambler Metals, and Trilogy are all continuing to work on what could be one of Alaska's premier mining districts. What is clear is that mining useful minerals like copper and zinc, gold, and cobalt is one of the few economic activities that can make business sense in Alaska. What is also clear is that rural Alaska has few options in finding enterprises that will employ its people other than government-related services such as health care and education.

With oil production declining and the world moving away from petroleum, the heyday of big oil is fading. Village people pay the highest prices for imported food, fuel, snowmobiles, outboards, and everything that is flown in or shipped up from Anchorage or Seattle. Without income, the migration to larger regional centers

and urban Alaska is likely to continue. Finding economically viable enterprises like mining is part of the key to keeping villagers employed.

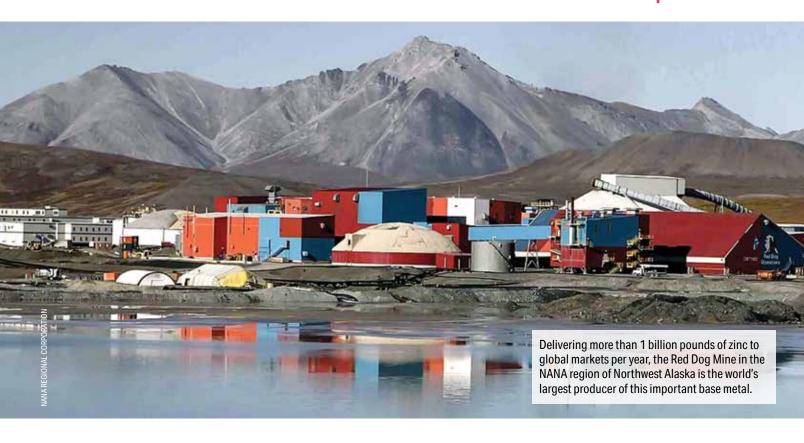
In spite of the dire predictions from the Alaska Miners Association back in 1968, that Alaska mining would come to a dead halt, mining has been rejuvenated as a source of jobs and income to Alaskans because there are now 44 million acres of private lands with economic potential that would not be here had Congress not passed ANCSA.

I often muse that if Alaskan businessmen and miners had had open minds about the ability of Alaska Natives to adjust to circumstances, how much better off we would all be had they worked with us to secure another ten or fifteen million acres. Now, that land is in the national forests, parks, preserves, and refuges.

▶ Learn more about Alaska mining and business organizations' early opposition to the Alaska Native Claims Settlement Act at ANCSA: an impossible challenge achieved on page 39.

ABOUT THE AUTHOR: Willie L. Iggiagruk Hensley is an Inupiat from the Northwest Arctic Region. He is an author, a college professor, and an Alaska Native leader who was instrumental in the formation of the Alaska Native Claims Settlement Act (ANCSA) of 1971, which restored 44 million acres of land to Alaska Natives. Hensley has been elected to both the Alaska State House of Representatives and the Alaska State Senate. He is one of the founders of NANA Regional Corporation. His autobiography, Fifty Miles from Tomorrow: A Memoir of Alaska and the Real People, was published in 2008. Hensley currently serves as a visiting distinguished professor in the College of Business and Public Policy at the University of Alaska Anchorage.

NANA Corporation



NANA embraces two worlds with one spirit

Iñupiat values guide success in boardroom, preserving tradition

By SHANE LASLEY

Data Mine North

The Red Dog Mine has been a gamechanger for the more than 14,500 Iñupiat shareholders of NANA Corp., the Alaska Native Claims Settlement Act (ANCSA) regional corporation that owns the world-class Red Dog deposits in Northwest Alaska that are the source of nearly 5% of the world's new zinc supply each year.

The revenues from shipping out more than 1 billion pounds of zinc annually, along with healthy portions of lead, silver, and minor amounts of germanium, have served as a catalyst to grow the Iñupiat-owned company into a global enterprise that generated US\$1.66 billion in gross revenues during 2019.

While NANA has grown into a multi-billion-dollar corporation over the five decades since ANCSA was passed,

the corporation remains deeply connected to its culture and the Northwest Alaska lands that its people have called home for more than 10,000 years.

This connection to tradition while fulfilling its

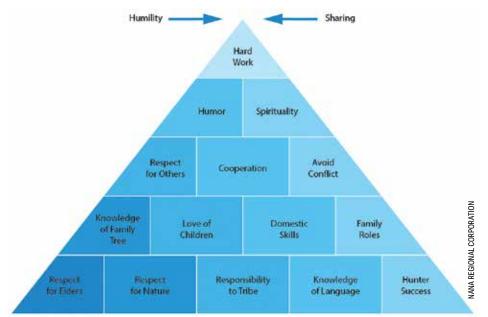
corporate mission to improve the quality of life for its shareholders through success in the boardroom is guided by 17 traditional Iñupiat values known as Iñupiat Ilitqusiat.

Meaning "those things that make us who we are," this core philosophy was developed over thousands of years and articulated by the Iñupiat Elders of Northwest Alaska during the Spirit Movement of the 1980s.



Lance Miller

Built on a foundation of five values related to tradition



Iñupiat llitqusiat, or "those things that make us who we are," are 17 traditional lñupiat values that keep NANA grounded in tradition as it grows as a global corporation.

and culture, Iñupiat Ilitqusiat also consists of four values related to family, three about how you work with other people, and two about balance in life.

"All of that really supports hard work, which is another value, and that allows us to be successful and share in that success – those are all parts of values of Iñupiat Ilitqusiat," former NANA President and CEO Wayne Westlake told Data Mine North.

Adhering to these values allows NANA to keep one foot firmly planted in tradition and helps to guide its success as a global corporation.

NANA's motto – Two Worlds, One Spirit – reflects this equilibrium between remembering the Iñupiat values that make its shareholders who they are and using those values to guide decisions made in the boardroom.

"It is really the ability to balance, that is the key to "Two Worlds, One Spirit'— not to separate but to embrace them both," he said.

Understanding and respecting that the core values of its people are considered in all executive decisions is crucial for any company hoping to explore and potentially develop the vast resource wealth the NANA region of Northwest Alaska has to offer.

"One of the key things when it comes to partnerships with NANA is the embracing the Iñupiat Ilitqusiat, those values and be willing to understand that and work with us to ensure we don't lose that, but we also create economic benefit," Westlake said.

Red Dog: confrontation to cooperation

While NANA has grown into a diversified and global enterprise, this success is rooted in mining, thanks largely to the success of Red Dog.

"We are into mining," Westlake said. "In other words,

when people think about mining in Alaska, you can't help but to not think of NANA."

This, however, was not the case when ANCSA was passed by the U.S. Congress in 1971, leading to the creation of NANA and 11 other landholding Alaska Native regional corporations.

"Looking back from the perspective of 25 years, it is amazing to me, even now, that Red Dog was developed at all," former NANA President and CEO Marie Greene said during the 25th anniversary of the zinc mine in 2014. "To say the cards were stacked against the mine was an understatement. At the time, our region did not want mining, and there was a further complication."

This complication was NANA,

Alaska, the federal government, and a mining company, all vying for the same zinc-rich real estate that was discovered during the uncertainty of ANCSA.

With the discovery of one of the richest deposits of zinc in the world in the 24.3-million-acre NANA region, the newly formed Alaska Native corporation faced tough boardroom decisions early on.

In 1974, NANA chose lands covering what would later become Red Dog Mine as a portion of the 2 million acres of lands it had coming under ANCSA.

In 1979 and 1980, Cominco, which would later merge with Teck Resources to form the company that now operates Red Dog, blanketed these same federal lands with mining claims and drilled eight holes.

"The results exceeded their expectations. They knew then, for a fact, that the deposit was large and of high grade; and their interest in potential development grew," Greene reflected on the discovery of Red Dog.

NANA, however, was opposed to Cominco's work in the region and was making headway in gaining ownership of the land through ANCSA. As a result, the young Native corporation sued, and Cominco was served with an injunction ordering the halt to drilling on the contested land, prompting the mining company to fire back with a lawsuit of its own.

It was at this volatile juncture that Cominco made a bold move that cemented the future of Red Dog – it chose diplomacy over conflict.

"They reached out to NANA leadership, on a personal level, to try to understand the issues and opposition to development in the region," Greene recalled.

Despite there being additional mining company suitors interested in the deposit, this engagement resulted in a unique development and lease agreement forged for Red Dog, which paved the way for NANA to gain ownership of the lands hosting the fantastically high-grade zinc deposit and for Teck to develop and operate the globally significant mine.

NANA's desire to participate in two worlds with one spirit was enshrined in the mandates of this agreement:

- Protect subsistence and the Iñupiag way of life.
- Create lasting jobs for NANA shareholders.
- Provide opportunities for NANA's youth.
- Act as a catalyst for regional economic benefits.

Cominco's willingness to respect the values of the people in the NANA region and find areas of mutual interests formed the foundation of what is now one of the strongest and most successful indigenous people-mining company partnerships in the world.

It also provides an early example of a mining company willing to build a partnership with a corporation that puts as much stock in its culture, people, and traditional uses of the land as it does in economic success from extracting the rich resources under those lands.

"We want to mine but there are certain things in our life that we don't want to lose," Westlake said.

Economic generator

In the 32 years since Red Dog went into production, the zinc mine has proven to be a significant cornerstone of NANA's business and an economic generator in its remote region of Northwest Alaska.

Under the agreement with Teck, NANA receives a net proceeds royalty from the Red Dog operation. This started off at 2% and upon Teck paying off its initial investment and operation costs in 2007 was bumped to 25%.

Under the agreement, this net proceed royalty increases by 5% every five years, up to a maximum of 50%. Currently sitting at 35%, NANA's royalty from the net profits at Red Dog will increase to 40% in 2022.

When you count both direct workers and contractors, the Red Dog Mine accounted for 1,338 jobs in 2018, of which 55% were filled by NANA shareholders.

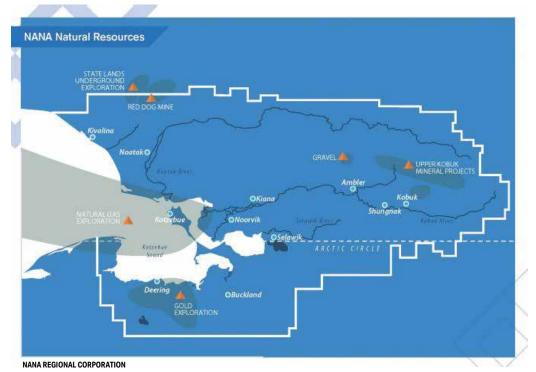
"It has been a revolutionary thing for our region economically and demonstrates the kind of development that can be done that not only benefits the local people but protects the environment," said Willie Hensley, who was active in the founding of NANA and subsequent development of Red Dog.

These economic benefits go beyond royalties and wages. Red Dog is currently the only "taxpayer" to the Northwest Arctic Borough, a municipality that blankets the same 40,750 square miles of Northwest Alaska as the NANA region.

The mine actually makes payments in lieu of taxes (PILT) to the borough each year.

Over the years, these PILT payments have supported government services to the region's residents, including bonding for schools, programs, services, and other





necessary infrastructure.

The structure of these payments was renegotiated in 2017.

Under the terms of the agreement, Red Dog is flowing roughly US\$20 million to US\$26 million into the borough each year. Approximately US\$14 million to US\$18 million of these annual funds are being paid directly to the Northwest Arctic Borough, a payment calculated on a percentage of Red Dog's fixed asset value.

The balance of the yearly payments is put into a village improvement fund established under the new PILT agreement. Administered by the borough, with input from the 11 villages it encompasses, this fund is earmarked for community programs, services, and infrastructure.

Red Dog put an initial US\$11 million in this fund in 2017 and will make annual payments into it based on the zinc mine's gross profit, calculated to be between US\$4 million to US\$8 million a year.

The Red Dog operation has paid around \$250 million in PILT payments to the Northwest Arctic Borough.

7(i) sharing benefits all Alaska

The economic benefits from Red Dog flow from Northwest Alaska to every corner of the state, thanks in large part to ANCSA Section 7(i), which requires regional corporations to distribute 70% of net revenues from resource development on ANCSA lands among all 12 regional corporations. In turn, Section 7(j) requires that half of the Section 7(i) payments to be distributed to the respective village corporations within each of the ANCSA regions.

The "leveling effect" of 7(i) and 7(j) creates economic

activity that otherwise would not occur in recipient regions and provides village corporations with vital funding.

When it comes to 7(i) proceeds from mining, NANA has been by far the largest contributor.

Of the approximately \$2.4 billion in proceeds NANA received from Red Dog through 2020, the Northwest Alaska Native corporation paid roughly \$1.7 billion in 7(i) payments to the other ANCSA corporations.

"That means we have a significant impact on the rest of the state and the other Alaska Native communities," NANA Vice President of Lands Liz Cravalho informed Alaska lawmakers in 2018.

While these provisions were primarily put into ANCSA as a way to bring balance to all the regional and village corporations by sharing the resource successes, they also fit well within the Iñupiat Ilitqusiat values.

Westlake told Mining News that he is proud of the work NANA companies and shareholders have put into the success of Red Dog, which has allowed NANA to share its success across Alaska through 7(i) distributions.

After 7(i) distributions, NANA has netted around \$840 million of the royalties it has received so far from Red Dog.

Expanding NANA's mining business

With Red Dog going strong and new mining projects advancing in the Ambler Mining District, it looks like NANA will be able to continue to share in its mining success for decades to come.

Red Dog currently has enough high-grade zinc ore in reserves to keep the operation going until 2031, and additional zinc deposits both on adjacent state lands indicate that this world-class mine will continue to be a globally significant supplier of this important base metal much deeper into the 21st century.

In recent years, NANA has been actively expanding its mining business. This initiative includes forging a partnership with Trilogy Metals Inc. to explore and develop the copper-rich deposits in the Ambler Mining District in the eastern part of the NANA region and launching an independent campaign to explore the gold-rich Fairhaven Mining District in the southern areas of its territory.

"Mineral projects are part of NANA's strategy for responsible in-region resource development to provide a sustainable economic base for NANA, the region and shareholders for generations to come," said NANA Vice President of Natural Resources Lance Miller.

The exploration work being carried out by NANA is not restricted to lands it owns but extends to public lands in the region.

This includes exploration in the Fairhaven Mining District, an area that is estimated to have produced more than 600,000 ounces of gold since the turn of the 20th century.

Under the direction of Miller, this work has focused on a roughly 70-mile-long structural zone known as the Kugruk Mega Shear.

Most of this placer gold produced in the district has been mined from Candle Creek, which drains off the east side of this Kugruk Mega Shear. Extensive ground cover in the region, however, has hidden the bedrock source of this alluvial gold.

NANA geologists, led by Miller, have narrowed down

» NANA's motto – Two Worlds, One Spirit – reflects this equilibrium between remembering the Iñupiat values that make its shareholders who they are and using those values to guide decisions made in the boardroom.

the potential lode source with regional exploration, including mapping, hydro-geochemistry, and systematic grid soil sampling.

This targeting led to drilling on NANA's Kuulu property, a block of state mining claims immediately west and upland of Candle Creek.

The best hole cut 1.77 meters averaging 20.5 grams per metric ton gold, 92 g/t silver, 1.79% zinc, and 2.63% lead.

In 2018, geologists working on an exploration program for NANA collected quartz-sulfide vein samples of up to 21.6 grams per metric ton gold in muscovite-biotite schist at Motherwood Point, which is where Kugruk Mega Shear emerges on the northern shore of the Seward Peninsula, some 20 miles north of the high-grade intercept at Kuulu.

"The Kugruk Mega Shear, located in the Fairhaven District on the northern Seward Peninsula, has produced results of new gold mineralization, and confirmed extensive gold and base metal mineralization," said Miller.

In addition to searching for metals, NANA's natural resources department ensures there are gravel resources available for economic development and are working to advance exploration for natural gas, which could result in energy independence for the NANA region.

Bringing benefits to Ambler District

In 2011, NANA and Trilogy Metals formed the Upper Kobuk Mineral Projects (UKMP), a partnership that brings together Bornite and a number of other copper-rich prospects on NANA-owned lands with the world-class Arctic deposit and dozens of similar volcanogenic massive sulfide prospects located on state, federal and patented mining claims in the Ambler Mining District.

"An agreement like this can potentially lead to long-term economic benefits to the region," Westlake said.

Located a mere 16 miles apart, Arctic and Bornite are each considered world-class copper assets that would have long since been developed if not for their remote location, some 200 miles off the beaten path in Northwest Alaska.

Together, Arctic and Bornite host roughly 8.9 billion pounds of copper, 3.6 billion lb of zinc, 626 million lb of lead, 77 million lb of cobalt, 770,000 ounces of gold, and 58.3 million oz of silver. And, the copper and cobalt contingents are expected to grow significantly when expansion areas of the Bornite project are brought into the resource.

Advancing these deposits in tandem will improve the economics of both.

In 2019 Australia-based South32 Ltd. agreed to invest a total of US\$175 million, including \$30 million already spent to earn a 50% interest in UKMP. Ambler Metals LLC, the resultant JV owned equally by South32 and Trilogy, is using these funds to unlock UKMP's world-class potential.

Arctic, the most advanced of the UKMP projects, hosts 43 million metric tons of probable reserves averaging 2.32% copper, 3.24% zinc, 0.57% lead, 0.49 grams per metric ton gold, and 36 g/t silver.

A prefeasibility study published in 2018 details plans for an open-pit mine at Arctic and a 10,000-metric-ton-per-day mill to produce metals-rich concentrates to deliver to markets.

Ambler Metals is carrying out \$27 million program to pepare the Arctic mine project for permitting, which is expected to get underway before the end of the year.

Typically, roughly 70% of the workforce at UKMP is made up of NANA shareholders, many of whom come from villages surrounding the projects.

"It is an important project for the people in our communities up there who otherwise would not have any employment at all," Westlake said.

"It is seasonal work, they are happy with that, they are able to get some income to help them make it through the winter," he added.

This ability to work in the summer and have the winter to spend with family, hunt, trap, and participate in other community activities reflects the corporation that they are shareholders of – living in two worlds with one spirit.

NANA Companies

NANA companies serving Alaska mining

NANA's growing portfolio of businesses provides services to the mining, petroleum, commercial, and federal business sectors in 15 countries on six continents.

NANA companies have been structured to evolve quickly—to embrace new technologies and game-changing capabilities—with the aim of exceeding the needs and expectations of NANA's customers.



Here is a list of NANA companies that provide a variety of services to Alaska's mining sector:

Tuuq Drilling, LLC provides drilling services to the mining and construction industries. Starting at the Red Dog Mine and within the NANA region, Tuuq has expanded its reach. Depending on the size of the project, Tuuq builds on partner relationships with other drilling companies. Tuuq owns and operates a fleet of new drills with automated rod handling systems; this new equipment provides higher drilling output with improved safety features. Using NQ tools, these drills can be operated in skid mount or helicopter portable configurations to depths in excess of 3,300 feet.



NANA WorleyParsons is a project delivery company focused on multi-discipline engineering and design, procurement and construction management services for the hydrocarbons; minerals and metals; and power, infrastructure and environment industries. NANA WorleyParsons, LLC is jointly owned through a 50-50 partnership between NANA Development Corp. and Australia-based WorleyParsons Ltd.



NANA Management Services, LLC (NMS) provides support services to businesses and institutions in food and facilities management, camp services, security, hotel management, and workforce development. NMS is owned by NANA Development Corp. (51%) and Sodexo Alaska, LLC (49%).



NANA/Lynden Logistics operates marine cargo, trucking services, and fuel transport services for Teck at the Red Dog Mine. The company is headquartered in Anchorage, Alaska. NANA/Lynden is owned by NANA Development Corp. (50%) and Lynden Logistics, Inc. (50%).



Kuna Engineering, LLC is a multi-disciplined engineering firm that provides innovative development solutions to projects and communities throughout the state. From planning to operation, Kuna has delivered exceptional service and results for diverse clients in every corner of Alaska for almost four decades. Kuna is committed to the Iñupiaq values of honesty, integrity, commitment, and respect.



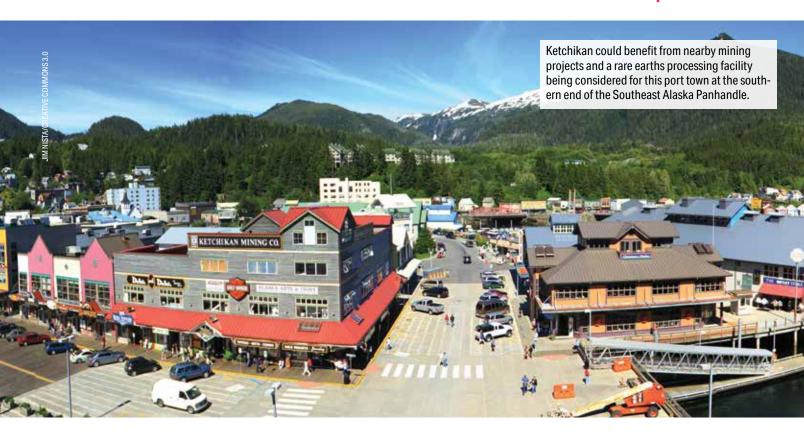
NANA Construction, LLC (NCC) is a full-service general contractor that provides core services to the mining, oil and gas industries. The company has supported Alaska's resource development industries since 2008 and has worked with major clients such as BP, Eni, Teck, Conoco Phillips, and Caelus.



Paa River Construction, LLC (Paa River) engages in civil construction, aggregate production, and mining support services. The company owns a fleet of equipment and has primarily focused on business opportunities at the Red Dog Mine. Paa River is owned jointly by NANA Development Corp. (51%) and Alaska Frontier Constructors, Inc. (49%).



Sealaska Corporation



Sealaska strives to build a better future

Traditional values guide SE Alaska land management strategy

By SHANE LASLEY

Data Mine North

Seeking economic and cultural prosperity for its more than 23,000 Tlingit, Haida and Tsimshian shareholders while also looking to provide even greater benefits for future generations, Sealaska takes a balanced approach to developing the resources growing above and stored beneath its lands in Southeast Alaska.

This does not mean the Southeast Alaska Native Claims Settlement Act (ANCSA) corporation shuns mining or other resource development in its region, a nearly 600-mile stretch of coastal Alaska rich in timber and minerals. Its economy, after all, has been rooted in forestry for the past 47 years.

"Natural resources will always be a core of what we do, being the largest private landowner is Southeast Alaska," Sealaska President and CEO Anthony Mallott told a crowd gathered for a 2019 breakfast hosted by the Alaska Resource Development Council.

What it does mean is that Sealaska believes "a better future, one in which both people and the planet thrive, is within reach."

Guided by tradition

Sealaska's land management strategy is guided by the traditional values of Southeast Alaska First People. Applying these values that have been developed over more than 10,000 years to a corporate setting is something the Southeast Alaska corporation spent nearly a decade working on.



Anthony Mallott

Haa Aaní, which means our land, is one such Southeast

Alaska value that speaks directly to Sealaska's land management strategy.

"Land itself is not a value, it is how we fit into the environment, how we work within the environment that is the value," Mallott explained during his March 7 presentation.

As such, Haa Aaní is the foundation for the collective identity and culture of Sealaska, and its tenets include:

- Utilizing the land while protecting it for future generations.
- Having a sustainable relationship with Sealaska lands.
- Providing sustainable community economies in Southeast Alaska.

Haa Shuká, which means our past, present, and future, is another value that influences how Sealaska utilizes its lands.

Understanding that the collective identity of Southeast Alaska people spans generations, Haa Shuká guides Sealaska to:

- Honor the sanctity of ancestral cultural and sacred sites and heritage.
- Provide social and financial benefits for current and future generations.
- Maintain social and environmental responsibility for sustainable operations.

"Take the strengths of the past, use them for current benefits, but make sure you are passing on as much strength and value to future generations," Mallott summarized Haa Shuká.

Haa Latseen, which means our strength and leadership, focuses on the collective strength of Sealaska and its shareholders.

"Our strength is our values; our strength is our land base, which is part of our values that we operate within our land." Mallott said.

The values of Haa Latseen include:

- Discipline, resilience, perseverance, and adaptability;
- education and training; and
- healthy families and communities.

"We really focused on the underlying themes of strength – it is training; it is continual improvement; it is a mindset that utilize your strengths in the best manner possible towards the best of the company," the Sealaska CEO explained.

Wooch.Yax, which means balance, reciprocity, and respect, guides Sealaska's partnerships with other organizations and how it works with its shareholders.

One of the main values under Wooch. Yax is Wooch. éen, which translates to people, tribes, and organizations working together.

"That is one of the biggest cultural changes that we took on at Sealaska, just listening," Mallott said.

And Sealaska management listening to current shareholders through dialogue; ancestors through the values passed down; and future shareholders through sustainable prosperity guides the ANCSA corporation's balanced approach to land management.

Making the most of the land

While Sealaska is the largest private landholder in Southeast Alaska, its holdings are relatively small due to the Tongass Forest that covers much of their region and are under federal control, either as a national forest or national parks.

"Southeast Alaska is 96% federally owned," Mallott said.

Sealaska, on the other hand, only has title to 3% of the land within its shareholders' traditional territory, or about 630,000 acres. This means that the corporation has the smallest property base of any of the 12 land-holding ANCSA corporations.

"Land ownership in Southeast is tough," the Sealaska CEO added.

Guided by Tlingit, Haida, and Tsimshian values, the Southeast Alaska ANCSA corporation is making the most of the lands it owns.

For most of Sealaska's 47 years, this has been focused on harvesting the rich timber resource growing from the 360,000 acres of surface and subsurface lands owned by the regional corporation, the balance of ANCSA lands in Southeast Alaska are surface rights owned by the village corporations.

This logging has drawn fire from conservation groups claiming Southeast Alaska Native corporation is clear-cutting the Tongass.

Mallott said the math of these claims does not add up, considering Sealaska only owns about 3% of the land in Southeast Alaska and only logged about a third of the forested lands it owns.

"40 years of harvesting and we have clear-cut less than 35% of our 360,000 acres. We regrow every acre of that – we replant 100 acres annually," he said.

Sealaska has found an innovative and sustainable way to turn a profit from the old growth on the remaining 65% of its forest lands – selling carbon credits.

Known as the carbon offset project, this involves selling credits in the form of carbon stored in Sealaksa's old-growth forests to offset carbon released in California under that state's cap-and-trade program.

For Sealaska, this means that roughly 165,000 acres of forest will not be commercially harvested for a century but can be used for other purposes.

Sealaska received a one-time payment for the carbon credits and is eligible for further payments if forest management results in a net gain of carbon stored there.

While the exact dollar figure has not been released, indications are the 9.3 million credits sold fetched a healthy sum.

These carbon credits offer a flow of cash that can be invested back into Sealaska shareholders, businesses, and communities for generations to come.

Mineral-rich stretch of Alaska

The Sealaska region, which stretches from the heavy mineral sands near Yakutat on the north end to the rare earths-rich Prince of Wales Island to the south, hosts a large number of base, critical, and precious metals deposits.

In fact, two of Alaska's six large-scale mines - Hecla Mining Company's Greens Creek and Coeur Mining Inc.'s Kensington – are located in this region, though not on Sealaska-owned lands.

In addition to these underground silver and gold mines, exploration companies are actively investigating the region for a wide variety of minerals and metals.

Constantine Metal Resources Ltd.'s Palmer copper-zincsilver-gold-barite project near Haines is among the most advanced of these projects.

Constantine, working with its partner Dowa Metals & Mining Co., has advanced Palmer to the point to begin investigating the potential of developing an underground mine there.

Toward the southern end of the Southeast Alaska Panhandle, Ucore Rare Metal Inc. has outlined a deposit of the highly prized rare earth elements at its Bokan Mountain project on Prince of Wales Island.

While preliminary economic and engineering studies for developing a mine at Bokan have been completed, Ucore is currently focused on establishing a rare earth processing facility at Ketchikan, a port town about 35 miles northeast of Bokan Mountain.

While this facility, known as the Strategic Metals Complex, may eventually process rare earths mined from Bokan Mountain, it is being built to initially separate REEs from feedstock sourced from outside of Alaska.

Other current mineral exploration projects along the panhandle include:

- Herbert Gold, a high-grade gold property north of Juneau being explored by Grande Portage Resources Ltd.
- Frenchie, a large gold- and silver-rich VMS prospect near Wrangell being explored by Zarembo Minerals Company.
- Snettisham, a vanadium-titanium-iron project held by Resolution Minerals Ltd.
- Icy Cape, a heavy minerals sands project on Alaska Mental Health Trust lands near Yakutat that is being explored for a number of minerals and metals, including titanium, zirconium, gold, and garnets.

Sealaska mineral potential

With Sealaska selecting its relatively small parcel of Southeast Alaska based largely on timber potential and traditional uses, none of the current mines or advanced mineral exploration projects are on its lands.

Some of the acreage held by the ANCSA corporation, however, does "have the potential to support small-scale mines."

Given the jobs and income potential from mining,

Sealaska has recently taken a closer look at the mineral resources on its lands and how a minerals program would best benefit shareholders and the region.

"Previous minerals mapping on Sealaska lands has indicated the potential for several types of mineral deposits including gold, silver, zinc, copper, iron and rare earth elements," Sealaska penned on the minerals page of its website.

Mallott said Sealaska is looking at market opportunities for the mineral potential on Sealaska lands.

"We talked with Constantine most closely," the Sealaska CEO said in 2018. "They have offered to look at some of our lands."

Constantine, who has been exploring a copper-zincgold-silver-barite project near Haines, is familiar with both the people and geology of Southeast Alaska.

Whatever future mining is carried out on Sealaska lands would need to fit within the traditional values that guide the Southeast Alaska corporation.

"As a Native enterprise with deep roots to Haa Aaní, our land, this obligation to proceed responsibly will be at the heart of Sealaska's minerals program," the company said.

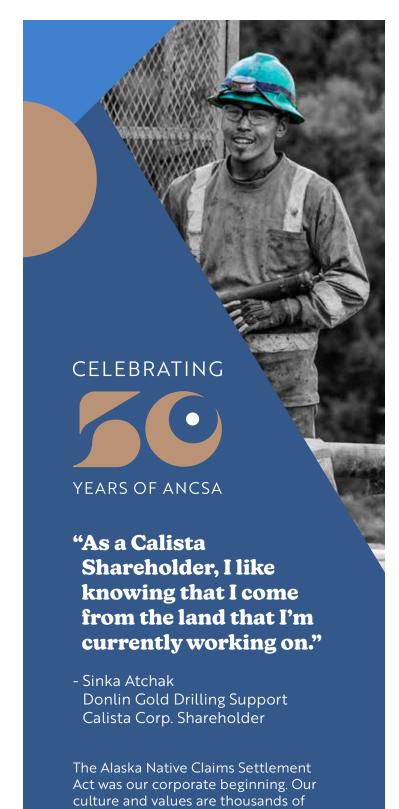
Wooch.éen, or working with its shareholders, is another value that must be honored to explore and mine on Sealaska lands.

The Southeast Alaska corporation says it "can only move its minerals program forward alongside community voices and input. This collaboration can have a positive economic impact for the region."

This is a common theme for working on ANCSA lands across Alaska and Mallott said Sealaska shareholders generally support resource development if it is done right.

"Our communities support responsible resource activity, and we work with them very closely to maintain that support," the Sealaska CEO said.





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