RED DOG-SUVISI
Q1 – 2019
What are the many people doing?

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PHOTO (Above) Red Dog Warehouse Manager Jay Mills (far right) poses with his warehouse crew.

Red Dog Warehouse Achieves 100% NANA Shareholder Hire

In 2015, Jay Mills set a goal of 100% shareholder staff when he became the warehouse supervisor. In 2018, he achieved that goal. Jay proudly shares that his team of 20 employees are all shareholders from the NANA region.

“I wanted to give our shareholders a good opportunity to have a great career and help support their families and loved ones, especially their parents and Elders,” Jay said about setting his goal. “I hear of my employees giving their sivulisqi (bonus) checks or dividend checks to family members, which I greatly admire. I think sometimes some of the younger generations don’t get the credit that they deserve. Maybe it’s because they don’t tell anyone they are doing these good deeds.”

The warehouse’s main job is to help keep the mine and mill departments running by receiving, shipping, handling, and moving material and freight. “I am most proud of our team’s efforts in 2018. With all the projects in place, our airfreight doubled. We went from having 90 Northern Air Cargo flights a year to over 180 flights,” Jay exclaimed. “Our team stepped up and met the challenge and did it safely. Without their great efforts, the mill and the mine could potentially have shut down.”
Hello everyone! I hope you faithful readers of the Red Dog–Suvisi newsletter will enjoy this edition. It is packed full of information related to important initiatives in the region and efforts by Teck that result in benefits to the local communities. Special thanks to the Red Dog community relations team for their work in this publication.

In this edition and going forward, you will find a quarterly update from the Red Dog Subsistence Committee. The committee includes Elders and hunters from our two closest communities, and leadership from NANA and Teck Red Dog. They work cooperatively to share traditional knowledge that helps guide operations to help preserve the subsistence way of life and protect the lands.

You can also expect regular updates on our State Lands Exploration Project. In the next 12 years, the existing deposit will run out of ore. We hope to develop a new ore deposit that will allow continued Red Dog operations to preserve many of the existing jobs and to create new employment opportunities as well as other benefits for local communities, the region and the state of Alaska. As the study on these deposits advances, we will continue to have close engagement with our local communities and regulators in order to obtain support for our plans and the necessary permits for required activities.

In February, the new rooms included in the camp expansion were completed and turned over to the site for use. Having these rooms available is critical to providing housing for the many personnel required to complete projects scheduled this year. Water damage issues were found when the kitchen and dining room renovation commenced. This resulted in unplanned restoration work before the renovation could advance. Please continue to be patient with personnel completing this final segment of the camp project.

Thankfully, spring has finally arrived! The months of February and March were especially challenging due to repeated severe winter storms with significant snowfall and high winds that prevented NANA Lynden from hauling zinc and lead concentrate to the port for extended periods. With concentrate inventories completely full, the mill was shut down for a total of 20 days during this period. Similar issues with winter storms caused a shutdown of 11 days in 2018.

During this period, our employees and contractors took advantage of the downtime to complete maintenance on equipment that will prevent unplanned downtime and lost production. Work was done safely with no significant incidents or injuries.

Thanks to all for working towards our core value of “everyone going home safe and healthy every day.” Our site team is finalizing a plan to maximize production over the coming months. I am confident that the Red Dog team will persevere and we will have another strong finish to the year.

Message from the GM

Les Yesnik, Red Dog Operations General Manager.
Red Dog Was Stepping Stone for Regional Shareholder

Some of the many benefits Teck provides the people of the region are scholarships, internships, and employment opportunities. Teck is proud to feature one of those beneficiaries, Eva Akimayuk Harvey. Eva received scholarships in 2000 through 2004 from Cominco, as well as a scholarship for dependents as a result of her father being a Red Dog employee.

Eva grew up in Noorvik and Kiana. She is named after her late Aana (grandmother), Eva Baldwin. Her adoptive parents are Edmond Sivugauraq of Noorvik and Myrtle Aakaluk Ivanoff Harvey of Unalakleet. Her biological mother is Gloria (Baldwin) Shellabarger of Kiana, and her biological father is Stanley Beanie Norton of Noatak. Eva’s family has benefitted from the Red Dog Mine since the mine first opened in the late ‘80s. Eva’s father worked at the mine for 20-plus years. “I became accustomed to my Dad’s rotation schedule, so it was just natural for me to look forward to working there myself,”

SEE STEPPING STONE, PAGE 10

Good Neighbors

Northwest Alaska has some of the highest fuel and energy costs in the state due to its remote location. Fuel and supplies must be barged or flown to all the communities, as well as Red Dog, causing a hefty added charge. Fortunately, Red Dog Operations – with the support of community relations, finance, and the port – was able to provide some cost relief to the closest communities of the mine by conducting a fuel transfer called the Village Fuel Transfer during the winter months.

It all started over 10 years ago, in the winter of 2008. Noatak tribal council member Virgil Adams, Sr. approached Red Dog’s environmental and public relations manager regarding the high prices of fuel, asking if there was an opportunity for Red Dog to assist in reducing fuel costs for residents in Noatak. Red Dog embraced the opportunity to help and made heating fuel that Red Dog purchases in bulk available at cost to both the residents of Noatak and Kivalina.

The process for the fuel transfer requires preparation not only from the community members and IRA but from the port and Red Dog fuel truck drivers as well. Residents purchase and fill out a Fuel Program Stove Oil Voucher from the IRA prior to traveling to the meet-up location off one of the local trails to fill their stove oil drums.

The lower cost of fuel is especially beneficial for Noatak. Noatak’s fuel cost is $8.99 per gallon, totaling almost $500 for a 55-gallon barrel of fuel to heat their homes. Through the fuel transfer program, a drum of stove oil costs $220 – less than half the price of fuel purchased locally. The price of fuel is adjusted annually based on costs during the time of initial purchase.

The 2019 Red Dog fuel run is scheduled to go on until the last week of April, as long as weather permits. The Red Dog fuel transfer is a true example of collaboration between communities and various Red Dog departments.
The Regional Elders Council, Iñupiaq Language Commission, and youth from all 11 communities gathered for the 2019 Northwest Alaska Elders & Youth Conference the week of January 21 in Kotzebue. Hosted at the National Guard Armory, the event was documented through film, radio, and photojournalism. Each day kicked off with Iñupiaq drumming and singing, honoring the Elders, and speaking the Iñupiaq language.

“This conference gives youth a chance to learn important traditional skills from their Elders, so they too can pass on the traditions someday,” said Red Dog Community Relations Coordinator Sami Schaeffer, who attended the event on behalf of Teck Red Dog. “Iñupiaq language ties deeply into our values, the Iñupiat ıñitqusiat – which roughly translates to ‘that which makes us who we are.’”

Each day after lunch, Elders and youth split off into their group of choice to learn traditional skills such as aqluutaq (mitten string), Iñupiaq survival skills, kuvriq (net making), niqsiq (ice fishing rod), uyuuqtaq/kakalak (sunshine ruff), and kigiraq (hard bottoms for mukluks). The Chukchi College hosted many of these classes at their Kotzebue campus.

“I have always wanted to learn how to make kigiraq since I was little!” Sami exclaimed. “This is something you can’t learn off of YouTube.”

Teck Red Dog was honored to participate in this year’s conference and lend support as a major sponsor.
Samuel Qutilaaqug Towarak, Jr. was born in Kotzebue and raised in Unalakleet, Alaska. His parents are Sam and Nita Towarak and his grandparents are William and Elizabeth Sheldon of Noorvik.

After being away for nine years, Sam returned to Red Dog in January 2019. He started at Red Dog in 2004 as a kitchen helper, then moved onto many other roles in mine operations, surface crew, warehouse, and finally HR.

Sam received his bachelor’s degree in business management from the University of Alaska Anchorage. “Red Dog has stayed the same but we definitely have more of a culture of safety today,” said Sam. “I gained a lot from Red Dog, not only financially where I was able to complete college with no debt, but also professionally. We have endless possibilities for people if they put in the work and have a good work ethic.”

Sam’s hobbies include fishing, hunting, photography, being in the outdoors, and taking family hikes with his wife and two sons.

**What has been your favorite project at Red Dog?**
When I was first here in HR, I did the student-to-work programs. I liked being able to work with our students from the region on employment possibilities they could have after high school.

**If you could give advice to someone who is thinking about working at Red Dog, what would it be?**
I would encourage them to apply but also do their homework. It is like nowhere else I have worked before. You work seven days a week and 11.5 hours per day.
State Lands Exploration Project

This is the first article of our quarterly newsletter updates on the State Lands Exploration Program.

Why is Teck doing exploration now?
All ore deposits eventually run out. To keep mines like Red Dog operating, new sources of ore need to be discovered. Teck American has been conducting mineral exploration around Red Dog Mine since the 1990s. The hope is to extend the mine-life of Red Dog and maintain the jobs, economic benefits, and government revenues it generates for the Northwest Arctic region and the state.

Currently, Red Dog Mine has enough ore to continue operating until 2031, or approximately 12 more years. But with successful exploration, there is the potential for Teck to find and develop new deposits that could extend the life of the operation further.

Did you know?
Explorers must be optimists, as only 1 in 1,000 exploration projects ever becomes an operational mine!

Teck to find and develop new deposits that could extend the life of the operation further.

Teck's current exploration in Northwest Alaska is focused on two zinc deposits – Aktigiruq and Anarraaq – located on state-owned land about 10 miles northwest of the current Red Dog Mine. Teck American holds the state of Alaska mining claims in the Aktigiruq and Anarraaq mineral exploration (State Lands Exploration Project or “Project”) areas.

What does exploration usually involve?
Exploration involves a series of staged activities including computer research, sampling and studying the soil and rocks, mapping the land, water sampling, and drilling to get core samples of the rock and ore below the surface.

Why does the Exploration Project need a road?
From our studies of the Aktigiruq and Anarraaq deposits, the mineralized rock is very deep, more than 3,000 feet below the surface. Teck needs to collect enough information about the mineralized rock through core drilling to make a decision on whether the project is economical or not. Given the northern climate, it is more efficient, safe, and environmentally friendly to conduct underground exploration drilling.

By exploring and drilling from underground, more information can be collected in a shorter period of time, unlike the current practice of helicopter-supported surface drilling, because the work can done year-round, not just during the summer months. This will require building a new exploration road to access the site and excavating an underground drift or “tunnel” where the exploration work would be conducted.

The Project is in the process of trying to obtain permits to construct a gravel access road from the end of Fish Weir Access Road at Red Dog to the Aktigiruq and Anarraaq mineral deposits. The road is needed to support mobilization of camp facilities and specialized underground heavy equipment to the exploration area, and transport of personnel, supplies, and equipment to support the exploration operations.

The Project requires a higher density of drilling (more drilling in a smaller area) to understand the size and the amount of zinc and lead minerals in the rocks. The only practical means of completing the definition drilling required is from an underground tunnel system that would allow a year-round program and shorter, more closely spaced drill holes.
How is the road route selected?
Four road options were explored in the summers of 2015 and 2017 with a skilled team of subsistence hunters, geologists, hydrologists, engineers, project managers, and environment and safety personnel. The team included Lowell Sage, Jr. of Kivalina and Virgil Adams, Sr. of Noatak, in order to incorporate their local knowledge of the environment. Comments from all participants were taken into consideration when determining which route would be best for an access road. This information was submitted with the permit request to the U.S. Army Corps of Engineers, who will make the final decision on the road route.

Will there be new jobs created by this exploration work?
The exploration activities will create employment opportunities in the region through opportunities related to construction of the access road and related underground exploration work.

Examples of jobs associated with exploration include:
- Drilling
- Underground workers (drillers, electricians, equipment operators, etc.)
- Surface operations (equipment operators, administrative support, etc.)
- Road building
- Technical studies
- Camp services

We are committed to making a difference in the communities where we operate and to providing opportunities for local employment and contracting. We are engaging with communities now to understand peoples’ interests and to establish a plan to support training individuals who may be interested in working in exploration.

How will local communities benefit?
Teck’s State Lands Exploration Project has directly created exploration-related jobs in the region. In the 2018 exploration season, 41 percent of employees were NANA shareholders. In addition, exploring new sources of ore in the region could help maintain Red Dog Mine, an economic engine for Northwest Alaska.

It is important to remember:
1) Exploration is complex.
2) It can take years to complete.
3) Exploration does not always lead to a new mine.
New Employee Spotlight

Ezra James Nuviya Adams recently joined Red Dog as a mechanical-engineer-in-training, following his recent graduation from the University of Alaska Anchorage with a bachelor’s degree in mechanical engineering in December 2018.

Ezra is from Noatak. His parents are Alice and the late Michael Adams, and grandparents are Matthew and Patricia Melton of Noorvik and Flossie Adams of Noatak.

In the summer of 2012, Ezra started with Red Dog at the heavy equipment shop as a wash bay attendant. After that, he held an internship every summer in the maintenance engineering department. “Each summer internship was different, which gave me a lot of experience that I otherwise wouldn’t have, including solid works modeling, non-destructive testing, and understanding of the mill equipment. I came up to Red Dog for a job shadow in the winter of 2008, where I job shadowed Randy Lewallen of the engineering department and I’ve wanted to be an engineer ever since,” Ezra said.

Ezra shares that with the support of Teck scholarship funding and summer internships at Red Dog, it was possible to have financial peace while pursuing his degree, allowing him to focus more on school and less on student loans or other financial needs.

Ezra also gives credit to the Rural Alaska Honors Institute (RAHI) program that provides rural and Alaska Native college-bound students the opportunity to immerse themselves in the college experience for six weeks in the summer.

“I encourage anyone who is wanting to go to college and is from a rural village to take advantage of summer opportunities, utilize scholarship opportunities, and get higher education in the field you are interested in or go to a technical school to have more experience in the field,” said Ezra.

Ezra enjoys hobbies that have anything to with the outdoors and weightlifting. “I’m happiest when I am outdoors, camping with nothing but the sound of the river passing by,” he said.

Welcome
(Continued from page 5)

What do you like about the HR department?
We’re like a family; we work together well and have respect for each other.

What unique trait do you bring to the HR department?
My ability to get along with people and see where they are coming from when they have problems or situations come up.

What advice would you give your teenage self?
[Laughing] I would definitely finish college faster, study, and save up my money to buy a house and boat. Also, I would tell myself that life is tough but keep on working hard – there is light at the end of the tunnel.
The Subsistence Committee, pictured in December 2018 with Arnold Brower from the Alaska Eskimo Whaling Commission. The committee plays an important role in guiding subsistence protection activities at Red Dog.

History
NANA owns the surface and subsurface rights of approximately 2.2 million acres and those lands include Red Dog Mine. Red Dog Mine respects regional subsistence priorities and, with NANA, formed a subsistence committee to help guide mine operations. The committee is made up of hunters and Elders from Noatak and Kivalina, the two communities closest to the mine.

Red Dog Mine Subsistence Committee
The subsistence committee acts independently, but collectively, in alignment with Iñupiat Iḷitqisiat. The committee’s role is advisory. They provide guidance on subsistence activities to the mine’s management representatives. The committee members are advisors, not decision-makers.

The committee meets at least four times a year with the mine’s management committee. They receive updates on key projects. They discuss all possible effects of mine operations on subsistence activities. The committee does not endorse projects.

Committee Members

**NOATAK**
- Roland Booth
- Virgil Adams, Sr.

**Paul Norton, Sr.**
- Robbie Kirk

**KIVALINA**
- Caleb Wesley
- Jerry Norton

- Charles Adams
- Dolly Swan

Results of Committee Input
The goal of the subsistence committee is to reduce the mine’s impact on the environment.

With committee guidance, Red Dog has implemented strict environmental policies:
- Migrating caribou are not disturbed when crossing the port road.
- Shipping schedule minimizes effects on marine mammal hunts.
- Trucks tow tightly covered trailers to keep dust from escaping.
- Water samples’ zinc and lead levels are regularly monitored.
Contractor Corner
NANA Construction

WRITTEN AND SHARED BY NANA REGIONAL CORPORATION
FROM THEIR HOLIDAY HUNTER 2018

NANA Construction (NCC) operates one of three fabrication facilities in Alaska. The facility is situated in Big Lake, north of Anchorage. The company also provides on-site construction services to support customers.

This summer, NCC successfully delivered 137 camp modules ahead of schedule to the Red Dog Mine. The company constructed and shipped the modules from the Port of Anchorage to the Red Dog Mine port site.

The modules were installed in the fall. NCC has seen substantial growth and expansion of its’ facility and field services divisions. This has been accomplished by focusing on key clients and areas of expertise in mining and oil and gas construction. With the increase in revenue and project opportunities, NCC has also been able to increase opportunities for shareholder hire and development. The company has grown from 45 employees in 2017 to over 300 active employees today.

STEPPING STONE
(CONTINUED FROM PAGE 3)

she said. Eva was introduced to the mine through Cominco’s high school job shadow program. During college, she worked the summer months at the port site as a laborer, core shack, and in environmental.

“During this era of employment, I received a foundation for the importance of getting to work on time. And we understood how important our jobs were, whether it was sampling the moisture percentage of the zinc and lead or taking water samples of nearby rivers and streams, because someone’s lives counted on us getting our jobs right,” said Eva.

The scholarship funding and employment at Red Dog during college helped Eva build her career. “Today, I am able to utilize my education and skills to give back to our people, all in which has a correlation to the way I was raised and the Iñupiaq lifestyle that my family gave me.

“Whether it be working on a project or on day-to-day business activities, I strive to make a positive impact for that specific goal because it may have a direct impact on our communities throughout the state of Alaska,” Eva said.

Eva is the current owner of Tribal Business Consulting and is a business partner of First Alaskans First LLC. Eva and her partner Chris McLain work with Tribes in Alaska to build tribal court capacity utilizing First Alaskans First’s framework.

Eva also works with village corporations and boroughs within the state of Alaska to provide professional, administrative, technical, and project support.

When asked what advice she would share with others, Eva said, “Start looking at such opportunities early, even before entering your high school career, because there are opportunities such as ANSEP (Alaska Native Science & Engineering Program) and RAHI (Rural Alaska Honors Institute) that will benefit your long-term educational goals and give you a head start on becoming successful.

“It is also important to understand our Iñupiaq values and understand the history of our people. Even though you may leave the region for school or work opportunities, those values will never leave you.”

Eva and her partner Chris raise their five children together.
**Stop the Drop**

**BY TOM FARR**

At Red Dog, we are committed to protecting the environment that we live and work in by following the environmental PIC policy – Prevent, Improve, and Comply. Even with our PIC commitment, Red Dog has had petroleum-based spills this past year. In November, the Heavy Equipment Shop initiated a new “Stop the Drop” approach. It’s not only our responsibility to prevent these spills, but also to improve our processes so that we can reduce their impact, thus enabling us to better comply with our stakeholder commitments.

The idea behind Stop the Drop is to catch small leaks, or potential leaks that have not yet occurred, and repair them before they become spills. This takes a team effort from both the operator and the mechanic and we can not succeed without help from everyone across the property. Equipment operators can identify a leak on a pre-shift inspection and promptly notify their supervisor for the necessary follow-up actions. Our mechanics can spot potential leak areas during the preventative maintenance (PM) process. Once identified, the machine can be brought to the shop for repair – or if it is already in the shop, the leak is corrected during the PM before returning the unit back to work.

Spills cause equipment downtime, create unplanned work for the maintenance group, generate more work for operators to clean up the contaminated area, and takes the supervisors away from their job while they complete the investigation on the spill.

Collection of data is another part of Stop the Drop, to keep us going down the path of improvement. We can use this data to track if a spill has occurred (reactive) or identify if a new leak is present (proactive), locate where on the equipment this problem happened, and what piece of equipment this occurred on. We use a computer program called PowerBI to track and monitor what is failing and at what frequency. We are able to use this information to redesign or modify a piece of equipment, which allows us to prevent the likelihood of failure in the future.

To date, the Stop the Drop initiative has resulted in proactive maintenance activities preventing a total of 170 spills with the potential of 4867 gallons. This effort also resulted in the addition of mobile spill response kits placed in all light vehicles around the property.
Kangig-si-kuti-luta avatmun
Understanding through sharing

We want to hear from you.
Let us know if you have any questions or feedback about Red Dog Operations.

You can submit feedback by:

Phone: 1.907.754.5168
Email: CommunityRelationsRDOG@teck.com
Online: www.teck.com/feedback
Mail: Red Dog – Community Relations
      3105 Lakeshore Drive
      Building A, Suite 101
      Anchorage, AK 99517 USA

We will contact you to acknowledge receipt of your feedback and follow up with a response. If you do not receive acknowledgement of your feedback within three weeks, please call us at 1.907.754.5168 or send us an email at CommunityRelationsRDOG@teck.com.