NORTH OF 60 NEWS

6 Pentagon calls for REE stockpile

DoD suggests a \$1.24B store of rare earth and other strategic minerals

11 Hit the frozen ground running

A handful of mineral explorers take advantage of winter in Canada's North

14 Hecla extends reach into Canada

U.S. miner invests in B.C. silver projects, makes bid for Quebec gold miner

Rising above Kendrick Bay in Southeast Alaska, Ucore Rare Metals' Bokan Mountain rare earth project is being hailed by market experts and policymakers alike as a right-size operation, recovering the right rare earth elements in the right location. Page 3

UCORE RARE METALS INC.





Only pay for the speed you need... Dynamic Routing![™]



meet your delivery requirements. If your vendor is behind schedule we can make up time and keep your business running smoothly.

If your vendor is early we can save you money and hassle by slowing down the delivery to arrive just as it is needed. Call a Lynden professional and let us design a Dynamic Routingsm plan to meet your supply chain needs.

www.lynden.comThe Lynden Family of Companies1-888-596-3361Innovative Transportation Solutions

ALASKA Ucore's Bokan: Baby bear of REE projects

Just right in terms of size and porridge of heavy rare earths, the Southeast Alaska project passes the 'Goldilocks Principle' test

By SHANE LASLEY

Mining News

'he right size operation, recovering the right rare earth elements in the right location; this is how market experts and policymakers are describing Ucore Rare Metals' Bokan Mountain REE project in Southeast Alaska.

In a March 9 article, "The Rare Earth Space, 'A Culling of the Herd, and the Survivors' (Part 1: North America)," preeminent technology metals expert Jack Lifton said Ucore and its Bokan Mountain project has the right elements to survive "the Darwinian nature of the markets."

"As I mentioned some time ago, the Goldilocks Principle will gain new credibility in the REE space, as it's the right-size project with the right products, critical rare earths that will ultimately prevail. Ucore's Bokan is such a project," Lifton wrote.

Aside from being just right in terms of size and its porridge of heavy rare earths such as dysprosium, terbium and yttrium, Lifton notes another big advantage for the future of Bokan Mountain.

"Ucore has yet another ace (in) the hole with the State of Alaska in their corner," noted the co-founder of Technology Metals Research.

Broad support

Lifton's assertion that Ucore has state backing is exemplified by SJR 8, an Alaska Senate resolution that supports rare earth exploration and development in the 49th state and Bokan Mountain, in particular.



Based on 9,550 meters of drilling completed by Ucore Rare Metals, the Dotson Zone deposit at Bokan Mountain is estimated to host an inferred resource of 5.3 million metric tons averaging 0.65 percent total rare earth oxides, some 40 percent of which are the higher value heavy rare earth oxides.

"Several experts have said it is likely that Alaska has one of the most significant rare-earth prospects in North America," said Sen. Lesil McGuire, R-South Anchorage, sponsor of Senate Joint Resolution 8. "If we play our cards right, this could secure our future as the lead supplier of America's rare earth mineral needs."

SJR 8 recognizes the deposits at Bokan Mountain as "rich in the heavy rare earth elements of europium, gadolinium, terbium, dysprosium, thulium, holmium, erbium, ytterbium, lutetium, and yttrium" and "the only known (heavy rare earths) deposits in the world that have deep water

access, accessible labor, and prospective power sources."

"There are actually two opportunities developing REEs offer for Alaskans. One is the value of the actual minerals and the

North of 60 Mining News is a monthly supplement of the weekly

newspaper, Petroleum News. It will be published in the fourth or

see **BOKAN PROJECT** page 4



Fairweather's new medical clinics in Anchorage and Deadhorse offer natural resource contractors competitively-priced occupational health and case management services at two convenient locations.

Both clinics are fully equipped to perform drug tests, occupational testing, case management and return-to-work assessments. In addition, the Fairweather Deadhorse Medical Clinic - an air ambulance staging facility - provides a full spectrum of acute care and emergency services including advanced cardiac life support, onsite labs and ambulance services.



Contact North of 60 Mining News:

Publisher: Shane Lasley • e-mail: publisher@MiningNewsNorth.com Phone: 907.229.6289 • Fax: 907.522.9583

fifth week of every month.

Petr	nl	ρ	111	n
	<u> </u>	å	u.	s

Shane Lasley **Rose Ragsdale** Mary Mack Susan Crane **Heather Yates Bonnie Yonker Clint Lasley** Marti Reeve Steven Merritt

PUBLISHER & NEWS EDITOR EDITOR-IN-CHIEF (contractor) CHIEF FINANCIAL OFFICER ADVERTISING DIRECTOR BOOKKEEPER AK / INTERNATIONAL ADVERTISING **GM & CIRCULATION DIRECTOR** SPECIAL PUBLICATIONS DIRECTOR

PRODUCTION DIRECTOR

ADDRESS P.O. Box 231647 Anchorage, AK 99523-1647

NEWS 907.229.6289 publisher@miningnewsnorth.com

CIRCULATION 907.522.9469 circulation@petroleumnews.com

ADVERTISING

Susan Crane • 907.770.5592

Fairweather is committed to providing innovative solutions to help employers enhance their HSE team objectives and maintain a safe and drug-free workplace.

To discuss creating a customized program to meet the needs of your company, call (907) 346-3247.

For additional information, go to www.fairweathermedical.com.







Fairweather, LLC 9525 King Street · Anchorage, Alaska 99515 Phone: (907) 346-3247 · Fax: (907) 349-1920 www.fairweather.com www.facebook.com/fairweatherllc

Curt Freeman	COLUMNIST
J.P. Tangen	COLUMNIST
Allen Baker	CONTRIBUTING WRITER
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Tom Kearney	ADVERTISING DESIGN MANAGER
Renee Garbutt	ADVERTISING ASSISTANT
Julie Bembry	CIRCULATION DEPARTMENT
Mapmakers Alaska	CARTOGRAPHY

scrane@petrol

Bonnie Yonker • 425.483.9705 bvonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS 907.522.9583

Several of the individuals listed above are independent contractors

NORTH OF 60 MINING NEWS is a monthly supplement of Petroleum News, a weekly newspaper. To subscribe to Petroleum News and receive the monthly mining supplement, call (907) 522-9469 or sign-up online at www.PetroleumNews.com. The price in the U.S. is \$98 per year, which includes online access to past stories and early access to Petroleum News every week. (Canada/Mexico subscriptions are \$185.95; overseas subscriptions are \$220) Or, just purchase the online edition of Petroleum News, which also includes the mining supplement and online access to past stories, for \$69 per year.

continued from page 3 **BOKAN PROJECT**

other is creating a whole new layer of the economy by refining those minerals here," said Sen. McGuire.

This resolution, which the Senate passed to the House with a 20-0 vote on March 13, is being considered alongside its companion bill, House Joint Resolution 9. Rep. Mia Costello, R-Anchorage, sponsor of HJR 9, has signed on as a House sponsor of SJR 8.

In addition to lending its support to the exploration for and mining of rare earths, SJR 8 urges Alaska permitting agencies to expedite consideration and issuance of permits required for the development of REE projects in the state and urges "the United States Congress to support efforts of the state to develop rare earth elements in the state for the benefit of the economic and national security of the United States."

As state legislators demonstrate resolve to support Ucore from Juneau, Alaska's delegation in

Washington D.C. have introduced legislation aimed at paving the way for construction of a road to the Bokan Mountain project.

U.S. Sens. Lisa Murkowski, R-Alaska, and Mark Begich, D-Alaska, Jan. 30 introduced S.181, a bill that calls for building some 75 miles (120 kilometers) of road that connects Bokan Mountain and Heatherdale Resources' Niblack mine project to the roughly 2,500 miles of roads that connect most of the communities on Prince of Wales Island.

Murkowski noted that this bill would permit development of a road that minimizes costs, while also minimizing the effects on surface resources, preventing unnecessary surface disturbances and complying with all environmental laws and regulations.

U.S. Rep. Don Young introduced a companion bill, HR 587, in the House.

"We're highly encouraged by these two



The sharp contrast between REE-enriched veins and barren rock at the Dotson zone of the Bokan Mountain project allows Ucore Rare Metals to consider the use of an x-ray sorter to reject REE-barren rocks, which is expected to reduce the feed at the proposed mill by 50 percent.

initiatives to expedite the development of the Bokan project," said McKenzie. "Alaska legislators have been exceptionally supportive of our development, which promises to bring skilled employment and numerous ancillary economic benefits to an area with tremendous potential. The bills additionally acknowledge and complement Ucore's commitment to complying with existing laws, fostering economic development in the region, and advancing production of materials designated as critical to national security by the U.S. Congress."

Bokan Mountain does not only enjoy support from Juneau and Washington, D.C., but has garnered a similar level of enthusiasm from the governments on Prince of Wales Island where the project is located.

Prince of Wales Community Advisory Council, an organization representing 12 communities on Prince of Wales Island, passed a resolution in support of building a road that would connect the majority of the island's roughly 6,000 residents to the two mine projects at the southern end of Prince of Wales.

Baby bear CAPEX

Ucore's hand is further strengthened by the baby bear-sized capital needed to build a mine and rare earth processing facility at Bokan.

A preliminary economic assessment released by Ucore in November, projects that it will cost US\$221 million to get the Southeast Alaska rare earth mine up and running. In addition to building the typical mine infrastructure and facilities needed to produce a concentrate, the upfront capital expenditure includes funds to build a separation plant capable of producing marketready rare earth oxides and a contingency of US\$25 million.

"Bokan's unique features have generated a (capital expenditure) that is among the absolute lowest in the industry, remarkably including full downstream separation facilities that promise to render high purity oxides both economically and on-site. In turn, the Bokan PEA has delivered highly robust (internal rate of return) and (net present value) calculations," Ucore President and CEO Jim McKenzie.

The PEA predicts a pre-tax NPV of US\$577 million, at a 10 percent discount rate; an IRR of 43 percent; and a payback period of 2.3 years.

"In the case of Ucore, their recent PEA delivered some metrics that set its Bokan property apart from the crowd ... not the least of which is an almost absurdly low

projection of the CAPEX required to get into production (\$221 million) and a product mix and form stated to be valuable enough to generate close to US\$100 million per year in pre-tax profit (with a 43 percent IRR). That's a bullish return on limited input capital," Lifton observed.

The technology metals expert also pointed out that the total cost of developing the mine and processing facility at Bokan Mountain is less than the US\$267 million state-owned Alaska Industrial Development and Export Agency spent to build and upgrade the 52-mile road and port facility that connects the Red Dog zinc mine in Northwest Alaska to world markets. AIDEA is being paid back through annual fees paid by the owners of the mine.

Innovative engineering

The projected low capital costs and high return of investment for Bokan Mountain is as much about innovative engineering as it is about heavy rare earth-enriched rocks that set it apart from most other REE projects.

"It's a peralkaline granitic-type deposit, which is just about the extent of the geology you are going to get," Ucore COO Ken Collison quipped during his presentation to a geologist heavy crowd at the 2013 Mineral Exploration Roundup.

Based on 9,550 meters of drilling completed at Bokan, Ucore released an inaugural resource estimate for the Dotson Zone deposit in 2011. At a 0.4 percent total rare earth oxide cut-off grade, this 2,140-long deposit hosts an inferred resource of 5.3 million metric tons averaging 0.65 percent TREO. Some 40 percent of the rare earths in the resource are the higher value heavy rare earth oxides.

Collison said the important geological aspect of the Dotson deposit, from an engineering standpoint, is that the REE mineralization is concentrated in a swarm of steeply dipping veins.



COMMUNICATION SOLUTIONS FOR THE ENERGY SECTOR



Oil Gas Mining

As the world's demand for energy grows, so does your need for fast and reliable communications. GCI Industrial Telecom has proven experience designing for and working in demanding environments. As experts in the field, our aim is to provide innovative end-to-end communication solutions to increase your productivity.



Your business technology partner. 877.411.1484 :: gci-industrialtelecom.com



"The key thing is the waste rock in between the veins is absolutely barren," the mining engineer explained.

This stark contrast between REEenriched veins and barren rock allows for the use of an x-ray sorter to scan the material as it heads up a conveyor and use a blast of high pressure air to reject REE-barren rocks before they drop into the grinder, reducing the mill feed by 50 percent. After initial grinding, half of the remaining material can be skimmed by magnetic separation.

"So we are going to have 1,500 tons per day coming out of the mine, but we are going to have a 750-ton-per-day grinding circuit and then the leaching circuit, which is extensive, is only 375 tons per day," explained Collison.

In addition to the immediate economic

see **BOKAN PROJECT** page 5

continued from page 4 **BOKAN PROJECT**

advantage of needing to build and power a smaller grinding circuit, the initial rejection of barren granite provides environmental and longer term economic benefits for the project.

Collison said that at a certain point the mine will consume 1,025 tons of tailings per day to backfill the voids, or about 275 tons per day more than the mine is producing.

"So when this mine finishes, we will not have any tailings on surface," the mine engineer beamed.

Ucore has been working with Montanabased IntelliMet LLC to develop a state-ofthe-art method for processing the rare earths, referred to in scientific circles as solid-phase extraction.

Considered to be a scientific leap beyond solvent exchange extraction, the method traditionally used to separate REEs, solidphase extraction utilizes nanotechnology. This less-complicated process is resulting in a smaller and more efficient facility for transforming Bokan Mountain ore into rare earth oxides.

Though cutting edge, the SPE procedure follows a much simpler flow-sheet than traditional REE extraction methods.

In bench-scale tests, IntelliMet treated a representative sample of Bokan ore with nitric acid, generating a solution containing the rare earths and other elements contained in the ore. Before precipitating the REEs out of solution, the Montana-based lab was able to pull out more than 99 percent of the non-REE elements - including iron, uranium and thorium.

Once these "nuisance" elements are removed, the proposed SPE processing facility will use three stages of subclass segregation to result in pure REE oxides pre-



Ucore Rare Metals hopes the broad support, positive economics and relatively simple development plan will result in a short runway to production at its Bokan Mountain REE project. The company has a target of 2016 to begin providing the United States with heavy rare earths from the project at the southern end of Prince of Wales Island.

cipitated out of the solution.

The PEA anticipates the mill and stateof-the-art processing facility to recover 81.6 percent of the rare earths, averaging 2,250 metric tons of rare earth oxides per year during the first five years of full production; including an annual output of 95 metric tons of dysprosium oxide, 14 metric tons of terbium oxide, and 515 metric tons of yttrium oxide.

Target: 2016 production

Lifton said the annual dysprosium output would supply nearly half of the current automotive requirements in the United States and about 10 times the need of the U.S. Department of Defense.

In October, DoD entered into a contract with Ucore to conduct a mineralogical and metallurgical study aimed at determining whether a mine and processing facility at Bokan Mountain could supply the U.S. Military with a domestic source of the heavy rare earths.

"Remarkably, the PEA supports a very straight-forward mine development plan in combination with a near-term production horizon at Bokan," said McKenzie. "What's more, this affordable, high-return facility will generate product that the US critically requires to sustain competitiveness in multiple high growth fields, including high tech, renewable energy, medical science and defense systems."

Ucore hopes the broad support, positive economics and relatively simple development plan will result in a short runway to production at Bokan Mountain. With permitting and feasibility level studies beginning this year, the company plans to have detailed engineering studies completed in 2014 and a construction start by 2015. If this schedule holds, Ucore has a target of 2016 to begin providing the United States with heavy rare earths from the Southeast Alaska deposit.

"Every so often, a low cost, right-size facility with a resilient high-demand product presents itself in the mining sector. Bokan is such a facility," touted McKenzie.



Creative photography for the oil & gas industry. JUDY PATRICK judypatrickphotography.com 907.258.4704



UNITED STATES

Pentagon orders an about-face on REEs

Department of Defense reverses its public stance on rare earths, recommends building a US\$130M stockpile of the strategic minerals

By SHANE LASLEY

Mining News

bout face; forward; march! The U.S. Department of Defense recently issued this order in the field of rare earth elements.

The unique properties of REEs - a group of 17 previously obscure metals that include scandium, yttrium and the 15 lanthanides - are key ingredients in a number of military applications such as guided missiles, lasers, radar systems, night vision equipment and battlefield communications.

China is estimated to supply between 90 and 95 percent of the world's rare earth oxides, according to a September 2012 report penned by Congressional Research Service.

Though these Sino-mined elements are key ingredients to much of the U.S. Military's advanced weapons systems, Pentagon officials have never considered REEs rare enough to need a stockpile of them.

"I wouldn't run out and buy a bunch of rare earths," DoD Industrial Policy Director Brett Lambert proclaimed during a defense conference held in New York late in 2010.

Today, the Pentagon proposes to do just that. In a 189-page report, the DoD recommends investing US\$130 million to establish near-term strategic stockpiles of seven rare earth elements - dysprosium, terbium, yttrium, erbium, thulium, scandium and one classified REE.

All told, the defense agency found "insufficient supply to meet demand" for 23 of 72 metals and minerals it studied and is

recommending that US\$1.24 billion be earmarked to build strategic stores of materials on the list.



Committee to have seen the report – the DoD named 19 of the mined materials that are in shortfall, the remaining four are classified.

The list of non-rare earth materials deemed in short enough supply to warrant stockpiling include antimony, bismuth, gallium and tantalum.

McGroarty told Mining News that China is a common thread that binds all of the unclassified metals and minerals on the stockpile list.

"China is a top-tier supplier for all 19 metals and minerals that they identified as being in shortfall," the president of American Resources Policy Network explained.

About face

China's dominance as a supplier of many of the metals of strategic importance to the U.S. Military has been a concern for many policymakers on Capitol Hill. Pentagon's previous laidback approach to ensuring an adequate supply of rare earths drew sharp reproach from U.S. Sens. Mark Begich, D-Alaska, and Lisa Murkowski, R-Alaska, and Rep. Mike Coffman, R-Colo.

"Clearly, rare earth supply limitations present a serious vulnerability to our national security. Yet early indications are the DoD has dismissed the severity of the situation to date," the lawmakers wrote in a January 2011 letter to then U.S. Secretary of Defense Robert Gates.

The senators urged the Pentagon to take inventory of the U.S. military's anticipated REE demand and establish policies to ensure an uninterrupted supply of these critical materials.

In their letter to Gates, the trio wrote, "In our view, it is a fundamental responsibility of DoD industrial policy to have a comprehensive understanding of the security of our defense supply chain, which requires understanding detailed knowledge of the sources and types of components and materials found in our weapon systems."

The DoD Office of Industrial Policy is charged with sustaining an environment that ensures the industrial base on which the Pentagon depends is reliable, cost-effective, and sufficient to meet its requirements.

The Alaska and Colorado legislators said the Pentagon should require its weapons contractors "to provide a detailed accounting of the various rare earth-containing components within their weapons system." This information could then be used to create policies that would ascertain that the military would have these vital minerals on-hand.

The American Security Project, a bi-partisan think-tank focused on national security issues, also weighed in on the risks posed by the U.S. military's dependence on China as its primary supplier of rare earths.

In a February 2011 report titled, "Rare Earth Metals and U.S. National Security," the Washington D.C.-based research group wrote, "Rare earth metals are essential for the United States' military and economic well-being. Yet the U.S. has been particularly lax when it comes to securing the supply of these metals."

Emily Coppel, author of the report, said, "Rare earth metals present a weak link in our defense supply chain. These metals are critical for national security, as they are essential for our most powerful weapons. The U.S. was once the world's top producer and supplier of these metals, but now China controls over 90 percent of the rare earths market. This means the U.S. is now completely reliant on China for the production of our most powerful weapons. While the U.S. has taken some steps to reduce this reliance on China, we have not done enough."

The Alaska and Colorado lawmakers requested the DoD provide Congress with a written report on its REE demand and "propose real solutions on rare earth availability."

"For example, one policy may be for the DoD to establish a limited stockpile of rare earth alloys that are in danger of supply interruption to ensure security of supply of both metals and magnets," the policymakers suggested.

The Pentagon's initial response to the congressional request was a scant sevenpage report in March 2012 that reflected its position that REE projects outside of China, such as MolyCorp's Mountain Pass Mine in California, and other adjustments in the Western rare earth markets should ensure that there is no military or commercial shortage of these strategic elements in the United States.

"Over the past year, there have been a number of positive developments with regard to both supply and demand within the rare earth materials markets," the Pentagon wrote in the belated report to Congress. "Reactions to market forces have resulted in positive developments, such as prices decreasing by half from their peak levels in July 2011, increased investment and domestic supply of rare earth materials, corporate restructuring within the supply chain, and lower forecasts for non-Chinese consumption. By 2015, the department believes this will help to stabilize overall markets and improve the availability of rare earth materials."

Capitol Hill, however, did not share the military's optimistic outlook.



According to Dan McGroarty - one of the few people outside of the Pentagon and the U.S. House DAN MCGROARTY Armed



large mechanic shop, multiple living quarters, & other camp related structures

Transportation vehicles,

- 5,000 foot airstrip big enough for DC-4 and DC-6 aircrafts
- More than 600,000 ounces of gold has been removed from the Candle area with possible reserves up to 400,000 ounces remaining on site
- Hard rock potential
- Geological data, drilling reports, surveys, and production reports are available upon request
- 450,745 oz of probable gold reserve

The Property is comprised

of two sets of claims.

- \$50 million plus in property infrastructure with road access to the property
- Over \$128 Million of gold has been mined
- 300 acres with extensive drill logs and exploration data
- 1,410 acres of mining claims
- Western Alaska (260 air miles from Anchorage
- 17,330 ounces of proven ground at cut off and much more virgin ground to explore
- Geological data, drilling reports, surveys, and production reports are available upon request
- Mill has burned so there is no equipment of value

Mine was 4.933 ounces Au

and 996 ounces Ag

- Prospective buyers must be willing to do significant amount of due diligence to determine the lode feasibility & permitting requirements
- A 5 acre mill site is included in the purchase price
- Approximately 25.16 total acres

Ryan Mae Lucas **Stewart Smith**

Office: (907) 865-6505 Cell: (907) 727-8686 Email: Stewart@StuSell.com



Office: (907) 865-6505 Cell: (907) 306-7135 Email: Ryan@StuSell.com

"Although new mine production may be able to make up the difference for some lighter elements (there may be an excess supply of the lighter elements such as cerium, lanthanum, and praseodymium), several forecasts show that there will likely be shortfalls of other light rare earths and several heavier rare earth elements, such as, dysprosium, terbium, neodymium, europium and erbium," according to the June 2012 report penned by the Congressional Research Service. "This potential shortfall has raised concerns in the U.S. Congress," the report added.

Forward march

In its "Strategic and Critical Materials 2013 Report on Stockpile Requirements," the DoD has gone beyond the recommendations made by the Capitol Hill lawmakers to look at the supply risks of a bevy of met-

see **ABOUT FACE** page 8

COLUMN Alaska slips in 2012 Fraser rankings

Industry leaders still ranked state among top 10 of 96 political jurisdictions around the world when it comes to mining investment

By CURT FREEMAN

For Mining News

n a year that has started off with more Lethan its share of mining industry gloom and doom, this year's Fraser Institute "Survey of Mining Companies, 2012/2013" provided a bit of sunshine for Alaska. The annual survey of exploration and mining companies gauges the pros and cons of working in various political jurisdictions around the world. This year's results came from 742 mineral industry companies working in 96 jurisdictions worldwide and represented cumulative 2012 exploration expenditures of more than US\$6.2 billion.

The perception of Alaska from the companies working here last year was not far different from 2011. However, Alaska ranked fifth under the "Policy/Mineral Potential index with no land use policies in place and assuming industry best practices" category, down from its surprising first-place position in 2011. Alaska reclaimed sixth place in "Mineral Potential with current land use policies in place" behind Greenland, Finland, Sweden, Nevada and Saskatchewan. Alaska also climbed to No. 19 in 2012 from 25th place a year earlier in the Policy Potential Index category, which measures all things related to regulatory policy.

All in all, we did pretty well with a seventh-place overall finish (versus No. 4 in 2011) behind Yukon, Finland, Nevada, Sweden, Western Australia and Wyoming. Alaska received high marks for its supportive and proactive state government, its public-sector digital database and its unequivocal identification of Alaska Native land claims. As usual, there is some lingering uncertainty out there regarding the consistency of administration and interpretation of existing regulations and on Alaska's well-recognized access and infrastructure challenges. We also got hammered for the heavy hand that the U.S. federal government can play in Alaska's mining industry.

Western Alaska

FREEGOLD VENTURES LTD. announced and updated NI43-101 compliant Mineral Resource estimate at its Vinasale gold project near McGrath. Indicated resources now stand at 3.41 million metric tons averaging 1.48 grams per metric ton gold for 162,000 ounces, and inferred resources are 53.25 million metric tons averaging 1.05 g/t gold for 1.799 million oz of gold utilizing a cutoff value of 0.5 grams of gold per tonne. Of significance is the increase in grade in the indicated category and the potential to both increase the grade and tonnage within that category. A total of 98 drill holes contain-

The author The author

Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He pre-

pared this column **CURT FREEMAN** March 25. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his website is www.avalonalaska.com.

ing 11,284 gold assays have been completed on the project within three areas: the Central, Northeast and South Zones. The highest density of drilling has been completed in the Central Zone where 53 drill holes totaling 12,352 meters were used in estimating the resource for the Central Zone. The company's 2013 program is expected to consist of additional drilling in the Central Zone where it remains open to the south, as well as potential resource definition in the North East Zone.

FIRE RIVER GOLD CORP. provided an update of activities over the last three months at it Nixon Fork mine near McGrath. The first production stope in the Mystery Mine was started and continues to deliver high grade ore. Additional adjacent mineralization has increased the size of the zone, and the company expected to exceed both the tonnage and grade forecasts for this first production area. Recent production has come from two existing longhole stopes. In addition, development drilling in the 3100 zone is nearly finished and resumption of development work there is being scheduled for the near future. Design work and planning for access to the 3550 zone is underway. Following several improvements in the milling system, production has improved from 921 ounces of gold produced in November 2012 to 2,032 ounces of gold produced in January 2013. The recovery rate during the period varied from 71-73 percent. The company also announced development drill results from the 3550 zone at the Crystal mine. Significant results include 6.36 meters grading 7.86 g/t gold in drill hole N12U-108; 5.35 meters grading 53.98 g/t gold in drill hole N12U-123; 4.28 meters grading 18.80 g/t gold in drill hole N12U-128;

MILLROCK RESOURCES announced that funding partner KINROSS GOLD CORP. has dropped its option on the Humble project in southwest Alaska and the Council project on the Seward Peninsula. Both projects are available for option with new funding partners.

Interior Alaska

FREEGOLD VENTURES LTD. announced resumption in February of resource expansion drilling at its Golden Summit project near Fairbanks. Drilling will initially be targeted at the 6 million ounce Dolphin/Cleary Hill deposit where infill drilling will be conducted to upgrade inferred ounces to indicated ounces and expansion drilling will be conducted to determine the limits of mineralization. Mineralization remains open to west, east and at depth and covers an area of at least 300 meters by 1,500 meters. The program for 2013 will include 20,000 to 25,000 meters of diamond core drilling, metallurgical testing and the initiation of a Preliminary Economic Assessment.

TERYL RESOURCES CORP. announced acquisition of a 50 percent working interest in the Fish Creek gold property from Linux Gold Corp. Linux Gold will retain a 5 percent net royalty interest with a cap of US\$2 million. Teryl has the right to purchase the 5 percent net royalty interest for US\$500,000 within one year of production. The Fish Creek property is located adjacent to KINROSS GOLD CORP.'S Gil gold project and nearby Fort

Knox gold mine.

INTERNATIONAL TOWER HILL

MINES LTD. provided a corporate update at its Livengood gold project. The company is focusing on completing all the engineering and analysis to support the completion of its Feasibility Study and the environmental work needed to maintain its current schedule. The company also indicated that the Livengood Feasibility/Optimization Study is on schedule and on budget. This work included completion of mine design/production schedule alternatives including equipment specifications and bids, completion of metallurgical tests to optimize recovery, completion of the milling process design circuit has with on-going work on throughput optimization. The mill will include an initial gravity circuit followed by standard carbon in leach recovery circuit. Equipment bids have been received and are being reviewed. The company also reported that environmental baseline information collection has entered its fifth year, establishing critical benchmarks for mine permitting needs.

BLUESTONE RESOURCES INC. announced receipt of a five-year exploration permit from the State of Alaska at its Shorty Creek gold project south of Livengood. The company plans to conduct confirmation drilling and additional exploration drilling programs. An historical 20 hole drill program produced drill intercepts of 70 meters grading 1.2 g/t gold, includ-

see FREEMAN page 10



3.43 meters grading 21.10 g/t gold in drill hole N12U-130, including 1.10 meters grading 48.00 g/t gold; and 3.35 meters grading 57.17 g/t gold in drill hole N12U-114 including 1.93 meters grading 99.00 g/t gold. Additional definition drilling in the 3550 zone is continuing.

Helicopter Charters Exploration | Survey | Slung Cargo | Tours | Film

(907) 745-5701 39901 N. Glenn Hwy. Sutton, AK 99764 helicopter@LFAV.com www.LFAV.com

FRONTIER

Alaska's energy future.



www.usibelli.com

• COLUMN

BLM manufactures another Alaska crisis

The bureau's draft Eastern Interior Management Plan is an unnecessary disaster for the state and the nation; it should be scrapped

By J. P. TANGEN

For Mining News

s a recent editorial in The Economist (March 16, 2013) notes, "[America's] debt is rising, its population is ageing ..., its schools are mediocre ..., its infrastructure is rickety, its regulations dense, its tax code byzantine, its immigration system harebrained - and it has fallen from first position in the World Economic Forum's competitiveness rankings to seventh in just four years." Nowhere do the realities of this national misdirection hit closer to home than in Alaska. Although we do not share as much of the national sense of despair as our more densely populated sister states do, we, in Alaska, are closer to our government than most Americans, and we suffer more from the proximity.

Alaska was founded on the strength of its natural resources; the bounty of the lands and rivers and forests were key prerequisites to statehood. The economic potential these resources implied were, and to this day remain, ginormous. Two-thirds of the state, however, is still under the yoke of federal management, even after 50 years of theoretical emancipation.

We have sustained numerous blows from our absentee masters, but still we rise to challenge them again and again. Clearly, the most injurious of these attacks has been on the state's onceproud timber industry, which continues



mining law in J.P. TANGEN Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News.

to be kicked around by the courts of far off Washington, D.C. Nonetheless, it is the resident agents of the overlord who do us the greatest harm because they are here; they can see and touch the deficiencies of their so-called "planning" exercises, yet, like the overseers of old, there is no limit to the pernicious burdens they choose to demand Alaskans bear.

An illustration of this destructive behavior is the now-pending Eastern Interior Management Plan dealing with more than one million acres (404,694 hectares) of federal land between Fairbanks and the Canadian border bounded on the north by Fort Yukon and on the south by Northway. Historically speaking, this has long been one of the most prospective areas in the state, dating back to 1881, when the gold rush was still in Alaska's future.

This land is, theoretically public domain managed by the Bureau of Land Management "in a manner which recognizes the nation's need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Minerals Policy Act of 1970 ... as it pertains to public lands." Nonetheless, even as we speak, the Eastern Interior Field Office of the Bureau is circulating a draft resource management plan that will heavy-handedly impose barriers and restrictions on this vast area, not only for resource development, including locatable minerals and hydrocarbons, but also on access - the sine qua non of resource development.

Not too many years ago, the U.S. Department of the Interior was home to the Bureau of Mines, which made its life-work identifying and studying prospective mineral terranes with the reasonable expectation that exploration would follow, and if warranted, mining would occur. Similarly, the U.S. Geological Survey engaged in mapping and describing the American landmass. Today, the Bureau of Mines is little more than a distant memory for most people, and the mission of the USGS has been diluted with the obligation to survey the biota.

Unsurprisingly, therefore, the planners of the BLM who are charged with discussing and accommodating the resources on the public lands find themselves not only ill-informed, but also illdisposed to make inquiries of the agencies and resources within their department when promulgating their planning proposals.

The current draft of the Eastern Interior Resource Management Plan virtually ignores the extensive mineral potential of the bulk of the studied area. It implies that deposits do not exist because they have not been discovered. It suggests that mining activities, if they did take place would be reckless and operate in ways that could never be permitted under existing law. It pretends that there have been no advances in geological methodologies since statehood or before. It disregards logic and reason by advancing irrational and impossible regulatory requirements.

For many Alaskans who are happy to enjoy the benefits of a productive mining industry but are willing to stand by while the overlord takes its toll, the developments in the Eastern Interior will cause little pause. However, every snap of the whip diminishes us all. It is said that we get the government we deserve. Perhaps, in a cynical sense, we deserve to watch the rights or our rights erode until there is nothing left. On the other hand, every voice in America counts. If you are among those who feel that this ill-conceived mismanagement of our public lands justifies an objection, speak up. The comment deadline is April 11.

continued from page 6 **ABOUT FACE**

als and minerals critical to the U.S. Military.

As a result, beyond the US\$130 million suggestion to accumulate a stash of heavy rare earth elements, the report details the need to build a US\$1.11 billion stockpile of 13 non-REE metals and minerals.

"The question now, in a Washington where the government is funded from month to month, and strategic thinkers are savants who see an hour into the next news cycle, is whether the U.S. government can muster a sustained policy to reverse our metals dependency – before the shortfalls posited in the Pentagon's hypothetical scenarios become all too real," McGroarty wrote in a recent article for Real Clear World.

This is not only an about-face for the

Pentagon but is also a reversal of a Washington, D.C. trend of diminishing its stockpile of minerals.

"Even experts in the industry are hardpressed to recall when the U.S. government last added to its metals and minerals inventory – and for good reason," wrote McGroarty. "Since the implosion of the Soviet Union in December 1991, the U.S. defense stockpile has been treated as a kind of raw materials garage-sale, with nearly all metals marked for a phased sell-off – calibrated so as not to unduly undercut current metal prices. Stockpile silver went to the U.S. Mint for the striking of silver dollars, an almost literal swords-into-plowshares swap."

While heartened by the Pentagon's about-face on the importance of having a reliable supply of heavy rare earths, The Strategic Materials Advisory Council – a

Washington, DC-based nonprofit group comprised of former U.S. government leaders and strategic materials experts – does not believe buying rare earths from China to place in a U.S. stockpile goes far enough.

"The root cause of these material shortages is our ongoing dependence on Chinese suppliers," said Strategic Materials Advisory Council Executive Director Jeff Green. "While it is encouraging that DoD acknowledges these risks, we urge DoD to move from theoretical studies to the only appropriate and permanent solution – the creation and nurturing of a U.S-based rare earth supply chain."

Close ranks

The Pentagon has already taken definitive steps toward the creation and nurturing of a U.S.-based rare earth supply chain.

In October, the DoD entered into a con-

a key component to establishing a complete heavy rare earths supply chain on U.S. soil.

Under the agreement with the Defense Department, Ucore will provide the Pentagon with the most up-to-date data on this nanotechnology research.

"The Department of Defense's investment in the Bokan deposit and Ucore's proprietary SPE technology represents a significant step toward recapturing the rare earths technological lead surrendered to China decades ago," said McKenzie. "What's more, the DoD relationship adds a great deal of credibility to Ucore's domestic supply chain development, representing one of the largest purchasing capabilities amongst prospective customers worldwide."

In addition to gaining an insider's perspective on the technology being developed by Ucore, the Pentagon made similar investments in Great Western Minerals Group Ltd., a rare earth processor with subsidiaries in the United States and United Kingdom., and Thomas & Skinner Inc., an Indiana-based producer of high performance magnetic materials.





Alaska Analytical Laboratory is an environmental lab perfoming the following services: soil analyses for Gasoline Range Organics (GRO), BTEX (Bezene, Toluene, Ethylbenzene, and Xylene); Diesel Range Organics (DRO) and Residual Range Organics (RRO) following the SW-846 EPA/Alaska Methods.

> 1956 Richardson Highway North Pole, Alaska 99705 Phone: (907) 687-7394 Email: klovejoy@alaska-analytical.com

tract with Ucore Rare Metals Inc. to conduct a mineralogical and metallurgical study on the heavy rare earths-rich Bokan Mountain project in Southeast Alaska.

The six-month program, managed by the U.S. Defense Logistics Agency, is investigating the possibility of developing Bokan Mountain into a mine and processing facility that could supply the U.S. military with a domestic source of heavy rare earths.

While Bokan Mountain is rich in yttrium, dysprosium, terbium and a suite of other prized heavy rare earths, the Pentagon's interest in Ucore seems to be as much about the state-of-the-art extraction technology that Ucore is pioneering as it is about the strategic metals stowed at its Southeast Alaska deposit.

Ucore has been working with Montanabased IntelliMet LLC to develop a method for processing the rare earths, referred to in scientific circles as solid-phase extraction. This avant-garde technique of turning concentrates into individual rare earth oxides is DoD's investment in Great Western is to conduct a supply chain assessment for highpurity yttrium oxide.

Thomas & Skinner was contracted to carry out an assessment of "the requirement for competitive domestic neodymium-ironboron (neo) magnets, or their substitutes, to support defense supply-chain manufacturing capability."

"China currently produces about 75 percent of the world's neo magnets, not including other unlicensed production," said Thomas & Skinner President and CEO Vern Detlef. "The (Defense) Department's investment into our research represents the ideal type of partnership in a first step toward re-establishing a competitive supply of domestically produced neo magnets." \bullet

Rethink Possible®



mobile communications wherever you need it

AT&T Remote Mobility Zone – critical communications for dark zones and disaster situations

When your organization needs cellular and Internet service and none is available, the AT&T Remote Mobility Zone can get you connected typically in less than 30 minutes. It's a highly portable cellular communications site – like a cell tower in a suitcase – that links onto the AT&T cellular network.

att.com/armz 1-800-955-9556



© 2013 AT&T Intellectual Property. All rights reserved. AT&T, the AT&T logo and all other AT&T marks contained herein are trademarks of AT&T Intellectual Property and/or AT&T affiliated companies. All other marks contained herein are the property of their respective owners. This document is not an offer, commitment, representation or warranty by AT&T and is subject to change.

continued from page 7 FREEMAN

ing 7.6 meters of 4.6 g/t gold, while subsequent soil geochemistry provided a positive correlation to the drill results, supporting the possible presence of a underexplored intrusion related gold system.

CONTANGO ORE INC. announced completion of a private placement to fund exploration at its Tetlin gold-copper-silver project near Tok. The company will use the approximately US\$14.2 million in net proceeds of the private placement to fund its 2013 exploration program in Alaska. Assuming success on initial drill holes, the company has budgeted up to US\$13 million on exploration and general corporate purposes. The company plans to spend about US\$5 million in the first phase of drilling and, after reviewing initial results, allocating the remaining capital towards the prospects that offer the best potential for expanding its recently discovered Peak zone and upgrading and identifying resources at one or more or its currently identified exploration targets. The company plans to utilize two or three core drilling rigs in this effort as well as conduct additional airborne geophysics, reconnaissance exploration and environmental baseline studies.

Alaska Range

WESTMOUNTAIN GOLD, INC. announced a NI 43-101-compliant resource update at its Terra gold-silver project in the Alaska Range. Using a cut off of 5 g/t gold, the estimate includes indicated resource of 49,809 oz gold at 13.25 g/t gold and 112,723 oz silver at 29.98 g/t silver and inferred resource of 369,795 oz of gold at 15.63 g/t gold and 653,884 oz silver at 27.63 g/t silver. Compared to previous estimates, tonnage increased 100 percent, inferred and indicated resource

increased by 150 percent and gold grade grew by 25 percent. The company is planning a 2013 field season with a budget of US\$4.2 million that covers a larger scale bulk sample program with an improved pilot mill, which has the ability to process up to 40 metric tons per day. In addition, the company will continue exploratory drilling on the project. Just prior to this announcement, joint venture partner CORVUS GOLD INC. agreed to sell all of its interest in the Terra project, subject to a retained production royalty, for US\$6.2 million in cash over time and issuance of 1 million shares of WestMountain. Corvus will retain a sliding scale net smelter production royalty of 0.5 percent to 3 percent on precious metals and 2 percent on base metals.

MILLROCK RESOURCES announced that a NI 43-101-compliant technical report on the Stellar project concluded that historical estimates of copper and gold present within the Zackly Main Skarn area are not reliable, and that re-drilling will be necessary to confirm the mineralization and/or allow a new industry-compliant resource estimate to be completed.

Southeast Alaska

HECLA MINING CO. announced year end 2012 production results from the Greens Creek mine on Admiralty Island. The total cash cost per ounce of silver produced for the year was \$2.70 per ounce versus negative \$1.29 per ounce in 2011. The average grade of ore mined during the year was 11.13 oz per ton silver, down slightly from the average grade of 11.49 oz per ton in the year previous. For the year the mine produced 6,349,235 oz silver, 55,496 oz gold, 21,074 tons lead and 64,249 tons zinc. The 100,000-oz decrease in silver production year-overyear is due to lower silver ore grade and higher mining costs, partially offset by higher mill throughput and lower milling

costs. While not replacing reserves in 2012, Greens Creek made significant progress in growing the potential of the 200 South and NWW zones. 200 South had some of the widest and highest grade intercepts in recent history at the mine, including 50 feet grading 0.08 oz per ton gold, 35.9 oz/t silver, 11.2 percent zinc and 4.9 percent lead in hole GC3483, 19 feet grading 0.49 oz/t gold, 65.8 oz/t silver, 7 percent zinc and 3.5 percent lead in hole GC3490, and 39 feet grading 0.18 oz/t gold, 29.7 oz/t silver, 9.1 percent zinc and 3.5 percent lead in hole GC3457. The mine expects 2013 to be a year of infill drilling in order to develop a mine plan on 200 South and Southwest Bench. Exploration results from surface drilling at Killer Creek defined a 150-foot wide zone of stockwork veins which comprises intervals with silver up to 1.5 ounces per ton and copper up to 5.4 percent. This mineralization, combined with discovery of zinc mineralization 1,500 feet away at the mine contact, might represent the exposed roots of a new mineralized zone. Surface core drilling at Killer Creek during 2013 is expected to total 25,000 feet.

COEUR D'ALENE MINES CORP. announced 2012 fourth quarter and yearend results for its Kensington mine. The mined produced 28,717 ounces of gold in the fourth quarter, more than double the fourth quarter production from 2011. For the year the mine produced 82,125 ounces of gold. While cash operating costs for the year were up 25 percent over year on year to US\$1,358 per ounce, cash operating costs in the fourth quarter were down 41 percent year on year to US\$1,065 per ounce and are expected to decline further in 2013. These cash cost declines followed the mine's return to full production in April 2013 after a planned shutdown in late 2011 and early 2012 to complete several underground and surface infrastructure projects and to establish increased

2013.



underground development footage. Total capital expenditures in 2012 were \$37 million. For the year, the mine processed 394,780 tons of ore grading 0.22 oz/t gold. Recovery rates averaged 95.6 percent, a significant increase over the already impressive 92.7 percent recovery rate experienced in 2011. During 2012, the company spent US\$7.1 million on exploration at the mine, completing 143,796 feet of core drilling mostly devoted to in-fill drilling of Block K and the Raven veins. Additional drilling focused on other targets such as Kensington South, the Ann Trend, Elmira and the historic Jualin mine. The company plans for an additional underground drilling program in 2013 on Zone 10, Zone 50, Zone 30, Kensington South, Elmira vein, and Ann. Continued surface drilling is planned at Jualin and several other targets on the property. The total 2013 exploration program is expected to be \$8.6 million. Drilling results at the Raven vein, located approximately 2,000 feet from the main underground workings at Kensington, identified initial proven and probable reserves of 50,400 ounces contained within 151,000 tons, at an average gold grade of 0.33 oz/t gold, 51 percent higher than the overall average reserve grade at Kensington. The mine's proven and probable reserves at year-end 2012 totaled 1.0 million ounces of gold compared with 1.3 million ounces of gold in 2011. The mine is expected to produce 108,000 to 114,000 ounces of gold in

GRANDE PORTAGE RESOURCES LTD. and joint venture partner QUATERRA RESOURCES INC. announced an updated NI 43-101 resource estimate for their Herbert gold project located near Juneau. Using a cutoff of 2 grams of gold per tonne, the updated estimate contains an indicated resource of 821,100 metric tons grading 6.91 g/t gold for 182,400 ounces of gold in the Deep Trench and Main veins. The Deep Trench and five veins that have had limited drill testing contain an additional inferred resource of 51,600 metric tons grading 7.73 g/t gold for 12,800 ounces of gold. The continuity and consistency of gold mineralization identified by in-fill drilling suggest that exploration on the other veins has the potential to produce similar results. The 2012 infill drilling campaign converted 52.3 percent of the metric tons and 74.4 percent of the ounces from the inferred to the indicated resource category. The grade increased by 42.2 percent compared to the previous resource estimate. At a cut off of 3.0 g/t gold, 56.0 percent of the metric tons and 81.7 percent of the ounces were converted to the indicated resource category, with an increase in grade of 46.2 percent. The



program also delineated a higher grade shoot within the Deep Trench vein. The resource remains open in multiple directions along the defined veins.

ARROWSTAR RESOURCES LTD.

announced that it had filed its application for a drilling permit on its Snettisham iron ore prospect located near Juneau. The drilling permit covers a proposed 3,600 meters of drilling consisting of 9 to 15 holes ranging in depth from 200-500 meters. Initial review has identified three high-magnetic intensity areas over a 750meter distance with the largest area having a magnetic intensity greater than 78,000 nanoTeslas over a surface area of about 750 meters by 750 meters. The drilling program is designed to determine the extent of the mineralization at depth, the mineralogy and petrology, the contact rock and the magnitude of the mineralization. With this data, an industry-compliant resources estimate will be prepared.

NORTHERN CANADA

Early birds take flight in Far North

Projects in NWT, Nunavut and Yukon see exploration activity, but few explorers jump at chance to advance 2013 programs this winter

By ROSE RAGSDALE

For Mining News

There's nothing like getting an early start, especially when it comes to mining exploration in Canada's Far North.

Literally, there's nothing like the 2013 program that Prosperity Goldfields Corp. kicked off in late February at its Kiyuk Lake Project to the east in southern Nunavut nor the 2013 field campaign launched about the same time by Kaminak Gold Corp. at the Coffee Gold Project in Yukon Territory.

In a year when many mining companies are having to scrape together enough exploration funds to even mount a field program and study ways to stretch every penny in their respective budgets, a significant number of Canada's producers and juniors north of the 60th parallel are braving frigid temperatures to begin exploration drilling while the region is still blanketed in winter snow. Most of these savvy explorers have advanced projects and choose to capitalize on the eight- to 10week period leading up to spring breakup to jumpstart annual exploration programs well in advance of the traditional summer field season.

"Many exploration and mining companies in Canada make the most of the winter season for their work," Prosperity President and CEO Adrian Fleming told Mining News March 25. "It's a bit like skating on a frozen lake. You can't do it in summer!

"So we do a lot of our most cost-effective exploration in winter when the frozen surface and lakes allow easy access for all kinds of machines. Our airstrip is on the lake next to camp," said Fleming of his Kiyuk Lake gold exploration project in Nunavut.

"Once you have a meter thickness of ice you can land pretty well any kind of airplane on a cleared runway. And that is much cheaper than using floatplanes. Also access using skidoo is a good way to get around," he explained.

Central, northern and eastern Canada traditionally have two field seasons for exploration, winter and summer, driven by the fact that many projects are only accessible by airplane, so you land on ice in winter and on water in summer, according to Fleming.

"You stay away from your project during breakup and until the fall as the ice is forming," he added.



Prosperity Goldfields moved personnel to its Kiyuk Lake exploration camp in southern Nunavut Feb. 27, in preparation for a 4,000-meter winter drill program. Having the airstrip on the frozen lake adjacent to camp provides easy and cost-effective access to the project.

ity geophysical targets at Gahcho Kué is expected to begin before the end of March. A second core drill rig is being mobilized to site and a first phase drilling program is expected to be completed by the end of April. Based on the success of the firstphase drill program, up to a further 14 priority geophysical targets may be drill tested, the companies have said.

At the Nechalacho project, Avalon Rare Metals Inc. began a brief definition drilling program Feb. 5. The objective of the program is to complete additional infill drilling near the planned underground crusher location, within stopes designed to be mined in the first few years of mine life.

The program is anticipated to be completed by mid-March, with an updated resource estimate expected by mid-June. This program also will provide additional sample material from the Basal Zone for ongoing process optimization. Avalon is working toward completing a feasibility study for the program in the second quarter of 2013.

At Courageous Lake, Seabridge Gold has begun core drilling the high-grade Walsh Lake gold target. The C\$3.1 million winter program is expected to complete 16 holes totaling 7,400 meters with the aim of generating an initial resource estimate for the Walsh Lake deposit which was discovered in 2012.

Activity at big projects

In Nunavut, two companies in addition to Prosperity are drilling at the moment, according to government officials. One is Sabina Gold & Silver Corp. on its advanced Back River gold project and the other is Xstrata Zinc Canada on its promising Hackett River base metal (silver, zinc, gold, copper, lead) project, both of which are located in the Kitikmeot region of western Nunavut.

Sabina Feb. 14 reported opening its Goose Camp at Back River and preparing to begin drilling in late February. The junior is planning to follow up its 2012 successes with a 45,000-meter program of infill, geotechnical and geo-mechanical drilling as well as exploration drilling of high potential greenfield-type targets in 2013. Sabina anticipated getting eight drills up and running on the project by the end of March.

Sabina is focused on completing an ongoing pre-feasibility study and supporting a potential subsequent feasibility study, while moving forward with permitting initiatives and plans to file a draft

see EARLY BIRDS page 12



Early work at NWT projects

Still, relatively few companies elect to begin work in the Far North as early as February, unless they conduct year-round operations.

In Northwest Territories, three explorations projects currently have drilling underway – the Gahcho Kué, Nechalacho Rare Earth Elements and Courageous Lake projects, according to government officials.

At the Gahcho Kué diamond project, geotechnical drilling related to planned surface infrastructure commenced in February, and is expected to be completed before the end of April. A total of 33 sonic holes and 31 core holes will be drilled.

Gahcho Kué is owned by a 51-49 percent joint venture between De Beers Canada Inc. and Mountain Province Diamonds Corp.

Core drilling of the first phase 15 prior-



Kaminak Gold Corp. Feb. 26 reported the start of a C\$11 million, phase-one 35,000-meter exploration program for 2013 at its Coffee Gold Project in Yukon Territory. Here, a drill crew works a rig on the Coffee project during Kaminak's 2011 exploration program.



Rigging & Lifting Supplies Statewide Pull Tested and Certified Slings Available

800-478-7600 • www.alaskarubber.com

continued from page 11 **EARLY BIRDS**

environmental impact statement by year's end. The junior also said it planned to update a resource calculation for Back River before March 31.

In 2012, Xstrata Zinc, the world's largest zinc producer opened its exploration camp at Hackett River Feb. 20 and drilled 203 holes totaling 51,548 meters during a field program that last 219 days until Sept. 25 that focused on extensions of the Main Zone, East Cleaver, Boot and Jo Deposits along with testing new geophysical and geochemical targets on the Hackett property. Geotechnical drilling also occurred in several areas where potential infrastructure or mine workings may be located.

In addition, Xstrata's 2012 campaign included two drill holes and field sampling/mapping work across the nearby Wishbone, Mahna Mahna, Hackett and Claim X properties.

For 2013, the major sought permission last fall from regulators to conduct another exploration campaign that includes a 50,000-meter drill program with objectives similar to those sought during the previous year.

Nunavut officials said Elgin Mining Inc. (Lupin gold project, former gold mine) farther north in the Kitikmeot region of Nunavut might be drilling at the moment, and Baffinland Iron Mines Corp. (Mary River iron ore project on Baffin Island) and Agnico-Eagle Mines Ltd. (either at the Meadowbank gold mine or the Meliadine gold project in the Kivalliq) also may be drilling in their respective Nunavut camps. These three companies have not publicly reported the start of 2013 programs on their respective large, advanced projects, but officials say they may have quietly begun drilling this winter.

Prosperity, however, is the only company seeking to capitalize on two prior successful exploration seasons by getting into the field so early. The junior reported moving personnel to Kiyuk Lake Feb. 27, in preparation for a two-drill, 4,000-meter winter drill program. Drilling was expected to commence within a few days, and assay results from the first few holes are expected in early April. Last year, the company launched a 3,000-meter winter drill program March 21, at least three weeks later in the season. "We believe that our aggressive exploration approach (in 2013) will expand the gold deposit at Rusty, and also establish additional gold zones at targets that were identified by the summer 2012 exploration program," Fleming explained.

Prosperity said it has several objectives for its winter program. Following encouraging results from previous drilling, the initial focus will be testing for extension of mineralization at the Rusty Zone that in 2011 and 2012 returned intercepts including 37.8 meters grading 4.18 grams per metric ton gold from surface and 61.5 meters grading 3.34 g/t from 159 meters.

While drilling will continue to work towards defining a resource at the Rusty zone, Prosperity also planned drilling for, in order of priority, the Bancroft and Rasmussen showings, and Cobalt and Amundsen zones.

The Bancroft and Rasmussen showings are new drill targets identified during the summer of 2012. The Bancroft showing was highlighted by detailed grid till sampling that outlined a well-defined gold-intill dispersal ribbon extending in a southwest direction for 2,000 meters. This southwest oriented dispersion is consistent with the direction of ice flow and till transport. Drilling will focus at the northern limit, or 'head' of the ribbon which is interpreted to approximate the location of the bedrock source of the till anomaly. This location coincides with surface boulder samples that range from below detection limit and 6.7 g/t gold, and an undrilled chargeability anomaly. The gold values in till samples at the head of the dispersal ribbon at Bancroft are of the same magnitude as that found directly over the Rusty Zone.

The Rasmussen showing, also identified during prospecting in 2012, is defined by gold mineralization in frost heaved boulders which are interpreted to have undergone minimal glacial transport. Gold values in these boulders range from 0.1 to 6.9 g/t gold.

New gold grain results from till samples at the Cobalt Zone have defined a new drill target. Drilling will test an area directly up-ice of a till samples with a highly anomalous number of pristine gold grains (762 of 943 grains) and several mineralized boulders with gold grades from below detection to 14 g/t gold. One of the planned drill holes at Cobalt will test an undrilled chargeability anomaly. Drilling at the Amundsen Zone will test for an extension to surface and along strike of the known gold mineralization (42.4 meters grading 0.97 g/t gold) intersected during drilling in 2012.

Keeping up momentum at Coffee

In the Yukon, Kaminak appears to be the only explorer to mount a 2013 winter drill program. The junior which currently has plump pockets with C\$16 million in cash and no debt is continuing exploration of its Coffee Gold Project where it outlined a highly encouraging maiden mineral resource in 2012. Two of the Yukon's producers, Capstone Mining Corp., at its Minto highgrade copper-gold mine, and Alexco Resource Corp., at its Keno Hills silver project, also may be conducting ongoing underground drilling, according to Yukon officials. At Coffee. Kaminak announced the start Feb. 26 of a C\$11 million, 35,000 meters phase-one exploration program for 2013, just two months after releasing an initial NI 43-101 inferred mineral resource estimate of 3.236 million ounces grading 1.56 g/t gold for the property. Field crews had been mobilized to Coffee, which is located in the White Gold district of west-central Yukon, and drilling





All Seasons



2700 S. Cushman, Fairbanks, Alaska 99701 | (907) 452-6631 | Fax: (907) 451-8632 351 East 92nd Ave., Anchorage, AK 99515 | 907-245-3123 operations@taigaventures.com | www.taigaventures.com

> ETO OVE TENT LOS COMPLETE

TAIGA JENTURES

12 CT

Fuel Systems Portable Tent Camps Expediting Services Camp Catering & Services Camp Catering & Services Baroid Johnson Screens Pacto Waterless Toilets

> Well Monitoring Supplies

> > see EARLY BIRDS page 13

CORP

continued from page 12 **EARLY BIRDS**

was to begin shortly. By comparison, Kaminak did not gear up for its 50,000meter drilling program in 2012 until late March.

"In less than three years, Kaminak has defined 3+ million ounces of shallow, high-grade gold at Coffee; an extensive, structurally controlled gold system which remains open in all directions," said Eira Thomas, Kaminak's newly appointed president and CEO. "Our work program in 2013 is designed to expand upon and define preliminary economic parameters for core resource areas at Supremo, Latte and Double Double, while at the same time continuing with an aggressive drilling campaign to identify additional resources over the broader, 100 percentowned Coffee district, where less than 20 percent of the prospective geology has been systematically tested to date."

Thomas, who formerly was president and CEO of Stornoway Diamond Corp., also said, "The majority of the inferred resources identified to date (at Coffee) are near-surface oxide or transitional facies, with initial metallurgical testwork proving positive for high gold recoveries in oxide material using standard leaching techniques. In addition to the ambitious drilling and resource campaigns that are planned for 2013, Kaminak intends to initiate early-stage engineering studies and conduct detailed metallurgical testwork in support of a preliminary economic assessment."

Kaminak's strategy will continue to focus on targeting shallow, high-grade oxide and transitional mineralization, which comprises about 90 percent of Coffee's existing 3.2 million-ounce inferred resource. To date, all deposits show good lateral continuity across more than 8 kilometers of total strike length, and remain open in all directions. Initial gold heap leach column tests undertaken on select samples of oxide facies material from Supremo, Latte and Double Double in 2012 were highly encouraging and resulted in 90 percent recoveries over 80 days, including 83 percent recoveries over 15 days. A comprehensive metallurgical program has been initiated for 2013 that will expand upon this work to test a broader range of samples collected from across all mineralized zones and to depth within the oxide, transitional and sulphide profiles.

Kaminak will conduct exploration drilling through the third quarter 2013 that will be incorporated into an updated mineral resource estimate and then applied to a preliminary economic assessment. In addition to the updated resource estimate, metallurgical and geotechnical data will be collected during the year to contribute to mining and processing optimization studies. Soil sampling will continue to be the primary exploration tool for identifying mineralized structures at Coffee. Thus far, it has contributed to a drilling success rate of close to 90 percent. Several kilometers of priority gold-in-soil anomalies remain to be tested on the property, and in phase one, drilling will be focused within the two-kilometer by two-kilometer core resource area testing anomalies associated with Supremo's T1, T6 and T8 structures, Latte North, Double Double South, Arabica and Mocha. Kaminak is also planning to collect a further 10,000 soil samples from across the property in 2013 with the goal of improving regional coverage and identifying additional priority targets for drill testing. Less than 15 percent of the 150,000-acre Coffee property has been systematically sampled for gold in soils.



A drill rig snuggles into the hillside at the Rusty Zone on the Kiyuk Lake gold project where Prosperity Goldfields Corp. encountered promising drill results in 2011 and 2012 that returned intercepts of 37.8 meters grading 4.18 grams per metric ton gold from surface and 61.5 meters grading 3.34 g/t from 159 meters.





World-class project. World-class science.

Pebble is a world-class copper deposit and one of North America's most significant copper discoveries. Since 2001, more than 100 independent scientists and technicians have conducted one of the most extensive environmental studies program in Alaska.

The Pebble Partnership is committed to responsible resource development in Southwest Alaska — recognizing that a world-class project requires world-class science.

www.pebblepartnership.com



ALASKA

Hecla eyes Canada's golden Aurizon

Strong silver production at Greens Creek helps fund investments in silver-rich B.C. projects, merger with Quebec gold producer

By SHANE LASLEY

Mining News

The 6.4 million ounces of low-cost silver recovered from the Greens Creek Mine in Southeast Alaska during 2012 is funding growth aspirations at Hecla Mining Co., including a foray into Canada's mining sector.

"This past year, with the Lucky Friday down, Greens Creek generated strong silver production and cash flow to allow record capital investments that are expected to generate not only higher silver production in 2013, but expected organic growth well into the future," said Hecla President and CEO Phillips S. Baker, Jr.

This growth starts with the first silver production from the Lucky Friday Mine since the Idaho operation was put out of commission for safety and operational upgrades at the end of 2011.

With Lucky Friday on track to contribute some two million ozs of silver in 2013 and Greens Creek output to remain on par with 2012, Hecla is looking at producing between eight million and nine million oz of the white metal in 2013 and 10 million ozs in 2014. This growth is expected to continue as Hecla brings online its growth projects in Colorado and Mexico.

"We are on a path to produce 15 million oz of silver (per year), and we expect to do that by 2017," Baker said during the BMO Global Metals & Mining Conference held Feb. 27.

As Hecla's exploration- and development-stage projects advance toward production, the company is eyeing candidates



Aurizon Mines' Casa Beradi operation in the Abitibi region of northwestern Quebec is anticipated to produce roughly 125,000-130,000 ounces of gold in 2013. The anticipated merger with the Canadian gold producer would shift Hecla Mining's metals profile from predominately silver to generating as much revenue from gold as it does silver.

to deepen its pipeline of precious metals assets.

"We have a focus on looking at things that are in North America – U.S. and Canada in particular," Baker explained.

Keeping to this strategy, Hecla has invested in two juniors with silver-rich projects in northern British Columbia and looks to have made a successful bid to buy out a third company with an producing gold mine in Quebec.

Golden Aurizon

A week after informing investors attending the BMO conference of Hecla's intention to focus on U.S. and Canada projects, the Idaho miner said it made a C\$796 million bid for Aurizon Mines Ltd., a 130,000ounce-per-year gold producer focused on the Abitibi region of northwestern Quebec.

"Hecla and Aurizon together create a unique precious metals company with three long-life, high-grade, low-cost mines in some of the best mining jurisdictions in the world," Baker explained.

Hecla, though, was not the only suitor hoping to buy out Aurizon. Alamos Gold Inc., a Toronto-based miner that holds a 16 percent stake in Aurizon, already had an unsolicited offer on the table to buy out the Quebec gold producer.

Aurizon's board of directors, which preferred the offer made by Hecla, adopted a poison pill and steep break-fee payable to Hecla that ultimately dissuaded Alamos from pursuing its hostile bid; clearing the way for the Hecla-Aurizon merger.

"Alamos firmly believes that shares in the company resulting from the combination of Alamos and Aurizon would be far more valuable than shares in the heavily indebted company resulting from the combination of Hecla and Aurizon," Alamos said upon pulling its offer. "Unfortunately, however, the unusual break-fee that the Aurizon board has agreed to give Hecla means that, for Alamos, the cost of acquiring Aurizon is now simply too high."

Under terms of the offer made by Hecla, the Idaho-based miner will acquire all of the outstanding common shares of Aurizon at C\$4.75 each. Each Aurizon shareholder will have the option to take C\$4.75 in cash or 0.9953 of a Hecla share for each Aurizon share held, subject in each case to pro-ration based on a maximum cash consideration of C\$513,631,193 and a maximum number of Hecla shares issued of 57 million. Aurizon has 164.55 million shares outstanding. Hecla, which had US\$191 million in cash at the end of 2012, plus an undrawn revolving credit of US\$150 million, will need to borrow funds to complete the buyout. Hecla said it received a US\$500 million commitment from The Bank of Nova Scotia that includes a US\$200 million amortizing term loan with a three-year maturity, US\$200 million revolving line of credit and a US\$100 million loan that would mature shortly after the close of the transaction. Aurizon ended 2012 with C\$204.2 million in cash and cash equivalents. In its 2012 year-end report, the company forecast gold production at Casa Berardi, its operation in Quebec, will produce roughly 125,000-130,000 ozs of gold in 2013 at an average cash of US\$810 per ounce.



Rock solid service.

When it comes to supporting the mining industry, no one understands your cargo needs better than Alaska Air Cargo. We know you count on reliable, on-time shipping for supplies and equipment, and we get you what you need when you need it.

Explore our services at alaskacargo.com.

Alayka Alir Cargo.

COMMITTED TO CARGO

THE #1 ON-TIME AIRLINE IN NORTH AMERICA* | **#alaskacargo.com** A valued cargo team member since 1982, Doug has three decades of experience supporting industry in Alaska

see HECLA PROJECTS page 15

continued from page 14 **HECLA PROJECTS**

The merger will shift Hecla's metals profile from predominately silver to generating as much revenue from gold as it does silver. Based on Bloomberg's estimated average metal prices for 2013, 39 percent of this year's pro-forma revenues of the merged company would come from gold, 38 percent from silver and 23 percent from zinclead.

Though silver has been Hecla's primary metal, Greens Creek produces roughly 50,000 ozs of gold per year as a by-product, including 55,496 oz of gold recovered from the volcanogenic massive sulfide deposit in 2012.

This gold, along with the 64,249 tons of zinc and 21,074 tons of lead recovered at Greens Creek, helped keep the mine's silver production costs low.

"For the full year, the company produced 6.4 million ozs of silver at a cash cost of US\$2.70 per ounce, still among the lowest costs and highest margins of the major primary silver producers," Baker said.

The C\$1.8 billion precious metal company resulting from the Hecla-Aurizon merger would have three operating mines with reserves of 150 million ozs of silver and 2.2 million ozs of gold in reserves.

"These three properties have in common strong exploration potential on very large and contiguous land positions as well as locations near communities that are supportive to mining. In addition, all three utilize similar mining methods enabling Hecla to leverage the knowledge and experience from each mine across the organization," Baker explains.

Historic Dolly Varden

At the western end of Canada and on the far side of Hecla's growth pipeline, the Idaho miner has invested in two junior companies exploring silver-rich deposits in northwestern British Columbia.

In September, Hecla spent C\$3.2 million to buy 20 million shares, or a 19.9 percent stake, of Dolly Varden, a junior explorer focused on the development of the historic Dolly Varden Silver Mines property located about 30 kilometers (19 miles) southeast of Stewart, B.C.

"Hecla is pleased to be able to make a strategic investment in Dolly Varden to participate in the re-emergence of a historic silver district with outstanding exploration and development potential," Baker said.

Dolly Varden's land package is in a geologic setting with world-class projects such as the past-producing Eskay Creek Mine, which is a similar deposit type to Hecla's Greens Creek Mine.

The Dolly Varden property hosts two historical mines - Dolly Varden, which produced 1.5 million oz at an average grade of 35.7 ozs per ton in the early 1920s and the Torbrit mine which produced 18.5 million ozs of silver at an average recovered grade of 13.58 oz per ton during the 1950s. Two other deposits, North Star and Wolf, have been defined and have development but have not seen any production. All told, these four deposits have a historic resource of 14.5 million oz. Dolly Varden is working towards upgrading these resources to NI 43-101 compliance and expanding them to a targeted 40 million to 50 million oz.



Above: Hecla Mining purchased a 19.8 percent equity interest in Brixton Metals Corp., a junior focused on exploring the Thorn project in northwestern British Columbia. A 26-hole drill program carried out Thorn in 2012 focused on the Oban breccia zone cut grades as high as 95 meters averaging 628.3 grams per metric ton silver, 1.71 g/t gold, 3.31 percent lead and 2.39 percent zinc and 0.12 percent copper.

At right: The 6.4 million ounces of lowcost silver recovered from the Greens Creek Mine in Southeast Alaska during 2012 is funding growth aspirations at Hecla Mining Co., including a foray into Canada's mining sector.

purchase to retain its 19.9 percent stake in Dolly Varden.

Immediately following the closing of the first tranche, Dolly Varden announced it has cut a deal to acquire Musketeer, a group of claims surrounded by the Dolly Varden property. Torbrit, Wolf, North Star and Dolly Varden abut the northern and southern boundaries of the Musketeer and are priority targets for exploration in 2013.

Pending the successful completion of the entire financing, the Vancouver, B.C.-based junior plans to spend up to C\$12-million at the Dolly Varden silver project in 2013.

see HECLA PROJECTS page 16



THE TEAM THAT DELIVERS.

When it comes to getting the challenging jobs done safely, with respect for the environment, on time and on budget, we're the ones to call.

In order to maintain its ownership, Hecla has agreed to participate in a C\$15 million financing (83,333,333 shares at C18 cents per share) offered by Dolly Varden in February.

Dolly Varden, which plans to carry out the financing in multiple closings, completed an initial C\$1.65 million tranche on March 20. The 10.31 million shares sold do not include the shares Hecla has agreed to



16



Hecla Mining's Greens Creek silver mine in Southeast Alaska produces roughly 50,000 ounces-per-year gold as a by-product, including 55,496 oz gold recovered from the volcanogenic massive sulfide deposit in 2012.

June 10-11, 2013 • Denver Marriott City Center, CO **Don't miss the case study from the Meadowbank Mine**

AGNICO-EAGLE'S SUCCESSFUL WATER MANAGEMENT IN THE FAR NORTH

MERICAS

SUMMIT 2013

- Understanding the physical and CSR challenges presented at the Meadowbank Mine, including:
- o Digging an open pit mine below the level of the lakes hemming it in on all sides
- o Building tailing storage facilities on permafrost
- o Coping with an extreme environment where temperatures vary between -32°C and 12°C
- o Exceeding the expectations of a complex and rigorous regulatory environment
- The Meliadine project: Overcoming the operational challenges of brackish water underneath the permafrost
- Analyzing the lessons learned for other operators and reviewing the next steps for both projects

continued from page 15 **HECLA PROJECTS**

In addition to continued exploration and definition drilling, repairing the road to Dolly Varden and establishing year-round operations at the historical silver mining property are on the docket for 2013.

A stake in Thorn

In late February, Hecla also forked over C\$2.6 million to purchase a 19.8 percent ownership interest in Brixton Metals Corp., a junior focused on exploring the precious metals-enriched Thorn project located 50 kilometers (31 miles) northwest of the pastproducing Golden Bear Mine within the Sutlahine River area of the Atlin Mining District.

Like its deal with Dolly Varden, Hecla has the right to maintain its nearly 20 percent interest in Brixton by participating in future financing of the junior. In addition, Hecla has the right to appoint one representative to the board of directors of Brixton, and will be providing technical assistance to the exploration company.

"Hecla's endorsement through this strategic investment is a huge vote of confidence for Brixton and speaks volumes to the potential of the Thorn project," said Brixton Metals Chairman and CEO Gary Thompson.

Brixton applied a portion of the proceeds from the financing to completing the acquisition of 100 percent interest in the Thorn project from Kiska Metals Corp., the balance of the funds are earmarked for continued exploration at Thorn during the upcoming field season.

Brixton has found substantial near-surface, high-grade mineralization at the largely untested Oban Breccia Zone, which is located in the heart of a six-kilometer (3.8 miles) mineralized corridor on the Thorn property.

A 26-hole drill program carried out by Brixton in 2012 focused on the Oban breccia zone, where hole THN11-60, which cut 95 meters averaging 628.3 grams per metric ton silver, 1.71 g/t gold, 3.31 percent lead and 2.39 percent zinc and 0.12 percent copper. Surface samples have returned grades as high as 6,149 g/t silver.

The best intercept of the 2012 program came in hole THN12-84, which cut 123 meters averaging 190.7 g/t silver, 1.19 g/t gold, 3.25 percent zinc and 1.74 percent lead.

"Exploration results at the Thorn property show several different styles of precious metal mineralization that highlight the potential for a substantive discovery," said Baker. "We're excited to be an integral part of their plans with our investment and believe Brixton has a strong management team in place to build shareholder value. Hecla also brings a wealth of knowledge gained from more than 120 years of mining and exploration experience, and this expertise will benefit the Brixton team."

Michel Julien Agnico-Eagle Mines Ltd. Corporate Director, Environment

REGISTER FOR THE NORTH OF 60 MINING NEWS VIP DELEGATE DISCOUNT PRICE

OF \$1,495* USD BEFORE APRIL 30, 2013 AT:

WWW.MININGAMERICAS.COM/N60

Contact: kelly.lowe@wtgevents.com or call: 416-214-3400 Ext. 2072

www.miningamericas.com

*This offer is not available to consultants or suppliers. This offer is also not available to existing Mining Americas Summit 2013 attending delegates. A 10% service fee is applied to bookings. As part of its investment, Hecla will have a representative on the Brixton board of directors.

In addition to gaining a sizable stake in Dolly Varden and Brixton, Hecla paid C\$2.52 million earlier in 2012 to buy a 15 percent interest in Canamex Resource Corp., a junior exploring the Bruner property, a high-grade gold project in central Nevada.

Hecla said its equity position in the trio of Vancouver-based companies is for investment purposes, and the Idaho-based miner currently does not have any present intention to acquire ownership of the explorers.

"Clearly at some point, we hope that it is something we would want to own. In the meantime we will be supportive and help these guys move these things along," Baker expounded. \bullet

YUKON TERRITORY Selwyn sells stake in zinc-lead project

Chinese company agrees to purchase junior's remaining 50 percent ownership interest in giant undeveloped deposit for C\$50 million

By ROSE RAGSDALE

For Mining News

he huge Selwyn lead-zinc project in eastern Yukon Territory is one of the latest on a growing list of resource developments attracting mega-investments from Chinese companies to Canada.

Selwyn, perhaps the largest undeveloped zinc-lead deposit in the world, is located in the heart of the Yukon's mineral-rich Selwyn Basin. After an aggressive multi-year exploration program, junior miner Selwyn Resources Ltd. attracted a C\$100 million investment in June 2010 from Yunnan Chihong Zinc & Germanium Co. Ltd., a fully integrated mining and smelting company based in southern China.

Chihong, working through its Canadian subsidiary Chihong Canada Mining Inc., formed a 50-50 partnership with Selwyn Resources and established a joint venture to develop the Selwyn project through completion of a bankable feasibility study.

Nearly three years later, Selwyn Resources is preparing to sell its remaining 50 percent interest in the project to Chihong for C\$50 million in cash. The move will put Chihong in the driver's seat for future development of the Selwyn Project, and make it the second Chinese company to gain control of a major mine project in the Yukon in recent years.

Yukon officials have actively encouraged Chinese investment in the territory's mining industry in the past decade with good results.

Jinduicheng In July 2008 Molybdenum Group Co. Ltd. and Northwest Nonferrous International Investment Company Ltd. purchased all of the public shares of Yukon Zinc Corp., owner of the high-grade polymetallic Wolverine underground mine located in southeastern Yukon. Wolverine began production of zinc-silver-copper-leadgold concentrates in 2012.

Among other Yukon deals, Hunan Nonferrous Metals Corp. purchased a sizable stake of Vancouver, B.C.-based North American Tungsten Corp. Ltd., which operates the Cantung tungsten mine southwestern Northwestern Territories in 2008. N.A. Tungsten is also developing the Mactung Project, which hosts one of the world's largest undeveloped high-grade tungsten skarn deposits in MacMillan Pass on the Yukon-

"With tremendous economic growth in Asia, there is increasing demand for natural resources, which makes it a logical trading partner for Yukon. Asia offers a potential source of investment as well as a promising market for our

natural resources." -Currie Dixon, minister of Economic **Development, Yukon Territory**

Canadian natural resource companies and projects, according to economists tracking the trend.

An estimated C\$25 billion poured into Canada from China in 2012, of which the purchase of Nexen Energy by Chinese state-owned CNOOC accounted for C\$15.1 billion. And money from the Asian country is likely to keep pouring into Canadian resource projects, according to Guy Saint-Jacques, Canada's ambassador to China.

While the Chinese have already staked out a significant share of Canada's energy sector, observers say the Asian country's companies - both state-owned and private sector - are just getting started when it comes to investing in Canada's mining and forestry industries.

Saint-Jacques told an Alberta audience in February that Canadian mining exports

see SELWYN ZINC page 23



Workers traverse the banks of a stream in the Selwyn Basin where one of the world's largest undeveloped zinc-lead projects is located.

URS THE HIGHEST STANDARD IN **ENGINEERING** EXCELLENCE

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTORS

URS is one of the world's leading engineering firms. Our professional staff work together to develop innovative and cost-effective solutions to the challenges facing government and industry.

ANCHORAGE 700 G Street, Suite 500 Tel: 907.562.3366

FAIRBANKS 3504 Industrial Avenue, Suite 125 Tel: 907.374.0303

17

FAIRBANKS 1(800) 770.1711 ANCHORAGE 1(800) 770.8265 WASHINGTON 1(800) 725.8108

Northwest Territories border.

Yukon Territory Economic Development Minister Currie Dixon, for example, visited Beijing and Hong Kong on a trade tour in January to help promote Asian investment in the territory's mineral resource projects.

"With tremendous economic growth in Asia, there is increasing demand for natural resources, which makes it a logical trading partner for Yukon. Asia offers a potential source of investment as well as a promising market for our natural resources," Dixon said in announcing the trip.

Chinese investment in Canada

The interest by Chinese investors in Yukon projects is part of a more widespread trend in Canada.

Foreign direct investment from China hit an all-time high in 2012, with most of that money going to purchases of

Tank INC.

G

Your local welding specialist for over 58 years, meeting & exceeding your needs!

Structural Steel | Plate & Sheet Steel Diamond Plate | Grating | Aluminum | Pipe

Commercial Septic & Water Tanks (Metal & Plastic) Tanks, Skids & Stands **Fuel Tank Accessories Custom Fabrications** Above & Below Ground Industrial Tanks

WWW.GREERTANK.COM

RTH OF $\wedge 60$ () Companies involved in Alaska and northwestern Canada's mining industry DI REC



Mining Companies

Kinross Fort Knox/Fairbanks Gold Mining Inc. Fairbanks, AK 99707 Contact: Anna Atchison, Manager, **Community and Government Relations** Phone: (907) 490-2218 Fax: (907) 490-2290 E-mail: anna.atchison@kinross.com

Website: www.kinross.com

Located 25 miles northeast of Fairbanks, Fort Knox is Alaska's largest producing gold mine; during 2011,

Fax: (206) 392-2641 E-mail: joe.sprague@alaskaair.com Website: www.alaskacargo.com Award winning cargo services to more places, more often, with more lift to, from, and within the state of Alaska.

Alaska Analytical Laboratory

1956 Richardson Highway North Pole, AK 99705 Phone: (907) 488-1266 • Fax: (907) 488-077 E-mail: jlovejoy@mappatestlab.com Environmental analytical soil testing for GRO, DRO, RRO, and UTEX. Field screening and phase 1 and 2 site assessments also available.

in Arctic and remote site development with the experience, equipment and personnel to safely and efficiently complete your project.

Alaska Steel Co.

1200 W. Dowling Anchorage, AK 99518 Contact: Joe Pavlas, outside sales manager Phone: (907) 561-1188 Toll free: (800) 770-0969 (AK only) Fax: (907) 561-2935 E-mail: j.pavlas@alaskasteel.com Fairbanks Office: 2800 South Cushman Contact: Dan Socha, branch mgr. Phone: (907) 456-2719 • Fax: (907) 451-0449 Kenai Office: 205 Trading Bay Rd. Contact: Will Bolz, branch mgr. Phone: (907) 283-3880 • Fax: (907) 283-3759 **Rebar Division** 1200 W. Dowling Anchorage, AK 99518 Contact: Mike Galyon, rebar mgr. Phone: (907) 561-1188 • Fax: (907) 562-7518 Full-line steel, aluminum, and rebar distributor. Complete processing capabilities, statewide service. Specializing in low temperature steel and wear plate.

Fort Knox achieved 5 million ounces of gold produced, a modern record in Alaska mining.

Usibelli Coal Mine

Fairbanks, AK 99701 Contact: Bill Brophy, VP Customer Relations Phone: (907) 452-2625 Fax: (907) 451-6543 Email: info@usibelli.com Website: www.usibelli.com Other Office PO Box 1000 Healy, AK 99743 Phone: (907) 683-2226 Usibelli Coal Mine is headquartered in Healy, Alaska and has 700 million tons of coal reserves. UCM produces an average of 2 million tons of sub-bituminous coal each year.

Service, Supply & Equipment

Alaska Air Cargo • Horizon Air Cargo

P.O. Box 68900 SEAFZ Seattle, WA 98168 Contact: Joe Sprague, Vice President of Cargo Phone: (206) 392-2705 or 800-2ALASKA

Alaska Earth Sciences

Anchorage, AK 99515 Contact: Bill Ellis, Rob Retherford, owners Phone: (907) 522-4664 • Fax: (907) 349-3557 E-mail: wellis@alaskaearthsciences.com A full service exploration group that applies earth sciences for the mining and petroleum industries providing prospect generation, evaluation and valuation, exploration concepts, project management, geographic information systems and data management. We also provide camp support and logistics, geologic, geochemical and geophysical surveys.

Alaska Frontier Constructors

P.O. Box 224889 Anchorage, AK 99522-4889 Contact: John Ellsworth or Chris Ledgerwood Phone: (907) 562-5303 Fax: (907) 562-5309 E-mail: afcinfo@ak.net Website: akfrontier.com Alaskan heavy civil construction company specializing

Arctic Foundations

Anchorage, AK 99518-1667 Contact: Ed Yarmak Phone: (907) 562-2741 • Fax: (907) 562-0153 Email: info@arcticfoundations.com Website: www.arcticfoundations.com Soil stabilization – frozen barrier and frozen core dams to control hazardous waste and water movement. Foundations – maintain permafrost for durable high capacity foundations.

Austin Powder Company

P.O. Box 8236 Ketchikan, AK 99901 Contact: Tony Barajas, Alaska manager Phone: (907) 225-8236 • Fax: (907) 225-8237 E-mail: tony.barajas@austinpowder.com Web site: www.austinpowder.com In business since 1833, Austin Powder provides statewide prepackaged and onsite manufactured explosives and drilling supplies with a commitment to safety and unmatched customer service.

Calista Corp.

301 Calista Court, Suite A Anchorage, AK 99518 Phone: (907) 279-5516 • Fax: (907) 272-5060 Web site: www.calistacorp.com

Construction Machinery Industrial, LLC

5400 Homer Drive Anchorage, AK 99518 Contact: Robert Fairbanks, Sales Manager Phone: (907) 563-3822 Fax: (907) 563-1381 Email: r.fairbanks@cmiak.com Website: www.cmiak.com

ERA Helicopter

6160 Carl Brady Drive Anchorage, AK 99502 Contact: David Sell, Business Development Alaska Phone: (907) 550-8607 Fax: (907) 550-8608 E-mail: dsell@erahelicopters.com Website: www.erahelicopters.com Helicopter charters, flight-seeing tours, aerial photography, oil and gas support, mineral exploration, construction, seismic remote site work, internal and external load, heli-hiking and sled-dog adventures.

GCI Industrial Telecom

Anchorage: 11260 Old Seward Highway Ste. 105 Anchorage, AK 99515 Phone: (907) 868-0400 Fax: (907) 868-9528 Toll free: (877) 411-1484 Web site: www.GCI-IndustrialTelecom.com Rick Hansen, Director Richard.Hansen@gci.com Mark Johnson, Business Development Manager Mark.Johnson@gci.com Deadhorse: Aurora Hotel #205 Deadhorse, Alaska 99734 Phone: (907) 771-1090 Mike Stanford, Senior Manager North Slope Mike.Stanford@gci.com Houston, Texas: 8588 Katy Freeway, Suite 226 Houston, Texas 77024 Phone: (713) 589-4456 Hillary McIntosh, Account Representative Hillary.Mcintosh@gci.com GCI Industrial Telecom provides innovative solutions to the most complex communication issues facing industrial clientele. We deliver competitive services, reputable expertise and safely operate under the most severe working conditions for the oil, gas and natural resource industries. GCI-your best choice for full life cycle, expert, proven, industrial communications.

Global Equipment Services Inc.

3820 Schact St. Fairbanks, AK 99701 Contact: Jeff Dahl, General Manager Phone (425) 531-1854 Email: jdahl@gesequipment.com Website: www.GESequipment.com Global Equipment Services Inc. purchases, sells and rents high quality heavy equipment worldwide with a strong emphasis on high quality work ready Caterpillar Track type tractors.

Advertiser Index

Alaska Airlines Cargo
Alaska Earth Sciences
Alaska Frontier Constructors
Alaska Steel Co.
Arctic Foundations
Austin Powder Co
Calista Corp
Constantine Metal Resources
Construction Machinery
Fairbanks Gold Mining/Fort Knox Gold Mine10
GCI Industrial Telecom4
General Refining Corp.
Global Equipment Services
Greer Tank Inc 17
Jackovich Industrial & Construction Supply23
Judy Patrick Photography5
Keller Williams Commercial6
Last Frontier Air Ventures7
Lynden
Nature Conservancy, The
Northern Air Cargo
Pacific Rim Geological Consulting4
Pebble Partnership 13
PND Engineers Inc.
Salt+Light Creative
Sourdough Express Inc.
Taiga Ventures/PacWest Drilling Supply 12
Total Safety
URS Corp
Usibelli Coal Mine7

Phone: (907) 456-4414 • Fax: (907) 452-4846 Anchorage office

Phone: (907) 277-1406 • Fax: (907) 258-1700 24- hour emergency service. With 30 years of experience, we're experts on arctic conditions and extreme weather.

Judy Patrick Photography

511 W. 41st Ave, Suite 101 Anchorage, AK 99503 Contact: Judy Patrick Phone: (907) 258-4704 Fax: (907) 258-4706 E-mail: jpp@mtaonline.net Website: www.judypatrickphotography.com *Creative images for the resource development industry.*

Keller Williams Commercial

101 West Benson, Ste. 503 Contact: Stewart Smith, Associate Broker Anchorage, AK 99503 Phone: (907) 865-6505 Cell: (907) 727-8686 Email: stewart@stusell.com Contact: Ryan Mae Lucas, Associate Cell: (907) 360-7135 Email: ryan@stusell.com Website: www.stusell.com; www.AKMiningClaims.com Mining Claims to buy, sell, or lease, call the Alaska professionals. We provide real estate brokerage service to the mining industry, with over 35 years of commercial experience. Call for a list of our featured properties.

Last Frontier Air Ventures

NORTH OF 60 MINING

freighters, domestic and international air forwarding and international sea forwarding services.

Northern Air Cargo

3900 W. International Airport Rd. Anchorage, AK 99502 Contact: Mark Liland, acct. mgr. Anch./Prudhoe Bay Phone: (907) 249-5149 • Fax: (907) 249-5194 Email: mliland@nac.aero • Website: www.nac.aero Serving the aviation needs of rural Alaska for almost 50 years, NAC is the states largest all cargo carrier moving nearly 100 million pounds of cargo on scheduled flights to 17 of Alaska's busiest airports. NAC's fleet of DC-6, B-727, and ATR-42 aircraft are available for charters to remote sites and flag stops to 44 additional communities.

Pacific Rim Geological Consulting

Fairbanks, AK 99708 Contact: Thomas Bundtzen, president Phone: (907) 458-8951 Fax: (907) 458-8511 Email: bundtzen@mosquitonet.com Geologic mapping, metallic minerals exploration and industrial minerals analysis or assessment.

Pebble Partnership

3201 C St., Suite 604 Anchorage, AK 99503 Phone: 907-339-2600 www.pebblepartnership.com

PND Engineers Inc.

1506 W. 36th Ave. Anchorage, AK 99503 Phone: (907) 561-1011 Fax: (907) 563-4220 Website: www.pndengineers.com Full-service engineering firm providing civil, structural, and geotechnical engineering, including mining support, resource development, permitting, marine and coastal engineering, transportation engineering, hydrology, site remediation, and project management.

TTT Environmental LLC

4201 "B" St. Anchorage, AK 99503 Contact: Tom Tompkins, general manager Phone: 907-770-9041 • Fax: 907-770-9046 Email: info@tttenviro.com Website: www.tttenviro.com Alaska's preferred source for instrument rentals, sales, service and supplies. We supply equipment for air monitoring, water sampling, field screening, PPE and more.

Taiga Ventures

2700 S. Cushman Fairbanks, AK 99701 Mike Tolbert - president Phone: 907-452-6631 • Fax: 907-451-8632 Other offices: Airport Business Park 2000 W. International Airport Rd, #D-2 Anchorage, AK 99502 Phone: 907-245-3123 Email: mike@taigaventures.com Web site: www.taigaventures.com Remote site logistics firm specializing in turnkey portable shelter camps – all seasons.

Total Safety U.S. Inc.

209 E. 51st Äve. Anchorage, AK 99503 Contact: Tyler Zollinger, District Manager. Phone: (907) 743-9871 Fax: (907) 743-9872 E-mail: tyler.zollinger@totalsafety.com Website: www.totalsafety.com A full service safety company specializing in Remote Medical Services, H2S Services, Industrial Hygiene, and Safety Consultants. Total Safety provides Service, Rental, or Sales of Safe Breathing Air, Gas Detection, and Technical Safety Equipment.

HDR Alaska Inc.

2525 C St., Ste 305 Anchorage, AK 99503 Contact: Jaci Mellott, Marketing Coordinator Phone: (907) 644-2091 Fax: (907) 644-2022 Email: Jaci.Mellott@hdrinc.com Website: www.hdrinc.com HDR Alaska provides engineering, environmental, planning, and consultation services for mining and mineral exploration clients. Services include: biological studies; cultural resources; project permitting; NEPA; stakeholder outreach; agency consultation; and environmental, civil, transportation, energy, and heavy structural engineering.

Jackovich Industrial & Construction Supply

Fairbanks, AK 99707 Contact: Buz Jackovich Sygol N. Glenn Hwy. Sutton, AK 99674 Contact: Dave King, owner Phone: (907) 745-5701 Fax: (907) 745-5711 E-mail: helicopter@LFAV.com Anchorage Base (907) 272-8300 Web site: www.LFAV.com Helicopter support statewide for mineral exploration, survey research and development, slung cargo, video/film projects, telecom support, tours, crew transport, heli skiing. Short and long term contracts.

Lynden

Alaska Marine Lines • Alaska Railbelt Marine Alaska West Express • Lynden Air Cargo Lynden Air Freight • Lynden International Lynden Logistics • Lynden Transport Anchorage, AK 99502 Contact: Jeanine St. John Phone: (907) 245-1544 • Fax: (907) 245-1744 Email: custsvc@lynden.com The combined scope of the Lynden companies includes truckload and less-than-truckload highway connections, scheduled barges, intermodal bulk chemical hauls, scheduled and chartered air

URS Corp.

700 G Street, Suite 500 Anchorage, AK 99501 Contact: Joe Hegna, Alaska Vice President/Alaska Operations Manager Phone: (907) 562-3366 • Fax: (907) 562-1297 E-mail: joe_hegna@urscorp.com Website: www.urscorp.com Provide engineering, construction and technical services with capabilities to support all stages of project life cycle. We offer a full range of program management; planning, design and engineering; construction and construction management; operations and maintenance; and decommissioning and closure services.

continued from page 17 **SELWYN ZINC**

to China already eclipse Canada's entire exports to Germany.

"As exploration activity and mineral production are intrinsically linked, the Canadian mining industry could see a dramatic expansion in the years to come," said MAC President and CEO Pierre Gratton. "While some volatility is anticipated, the larger determinant in capitalizing on the opportunities before us is to ensure the industry has access to the right investment and regulatory environments it needs to support development."

In looking to 2013, the MAC report stressed that despite challenges, the Canadian mining industry's economic prospects are strong. "Regardless of concerns over the growth rates of China and other emerging markets, it is widely held that growth, even if at a moderately reduced pace, is likely to remain strong over the long term," Gratton said.

Deal reflects market reality

Selwyn Resources March 4 reported entering into an asset and share purchase agreement with Chihong Canada Mining Ltd. and Selwyn Chihong Mining Ltd.,

the joint venture entity, to sell the Selwyn's remaining interest in the project.

Selwyn President and CEO Harlan Meade, Ph.D., said the decision to sell the company's 50 percent stake in the project "reflects the realization of the large capital requirements that will be needed to advance the Selwyn Project to production and the associated risks to Selwyn shareholders, including but not limited to, the potential for significant dilution of shareholders' equity in the Selwyn Project."

"At a time of reduced industry interest in undeveloped mineral deposits, Selwyn is satisfied that the timing of this transaction and the purchase price negotiated are in the best interests of the shareholders," Meade added.

After completion of the transaction, Selwyn Resources will have no further interest in the Selwyn project, and the JV agreement will be terminated.

Completion of the transaction is subject to certain conditions, including Selwyn shareholder approval, approval of the board of directors of Yunnan Chihong and certain Chinese governmental approvals. Chihong Canada has entered into support and voting agreements with certain significant shareholders of Selwyn. Such shareholders hold, in aggregate, about 41 percent of Selwyn's outstanding common shares.

If all conditions to closing are satisfied, including the receipt of Selwyn shareholder approval and the necessary regulatory approvals, it is anticipated that the transaction will be completed by early June.

Chihong advances cash deposit

Chihong Canada provided a deposit of C\$5 million cash as an advance of the purchase price. A second deposit of C\$5 million cash will be paid on or about April 9, provided Selwyn is not in default of any of its obligations and covenants required to be performed under the purchase agreement. Chihong Canada will pay the remaining C\$40 million of the purchase price at closing of the transaction.

If the transaction does not close, the deposits must be refunded to Chihong Canada, except where the failure to close the transaction is the result of the failure of Chihong Canada to comply with the terms of the purchase agreement, or obtain its necessary parent and Chinese governmental approvals for the transaction. The refund of the deposits, if necessary and if not promptly paid in cash, will

nature.org

be carried out by Chihong Canada converting the outstanding deposit amount into a corresponding increase in its interest in the joint venture. If the entire C\$10 million of deposit funds are converted, Chihong Canada's interest in the joint venture would increase to 60 percent, and Selwyn's interest would decrease to 40 percent.

The completion of the transaction is subject to certain conditions, including the following:

Approval of the transaction by at least 66 2/3 percent of the votes cast by Selwyn shareholders at an annual and special meeting of shareholders expected to be held in late April 2013;

Approval of the board of directors of Yunnan Chihong Zinc & Germanium Co., Ltd. (parent company of Chihong Canada) and certain Chinese governmental approvals;

Holders of no more than 10 percent of the issued and outstanding Selwyn common shares having exercised dissent rights in respect of the transaction;

Approval of the TSX Venture Exchange; and

The fulfillment or waiver of certain customary closing conditions set out in the purchase agreement.

Covenants, representations, warranties and indemnities

Selwyn and Chihong Canada also agreed to certain customary covenants relating to obtaining the approval of requisite regulatory authorities and the shareholders of Selwyn. Under the purchase agreement, Selwyn will not solicit alternative proposals, and Chihong Canada has 10 business days to match any alternative proposals that constitute a "superior proposal" under the terms of the purchase agreement. Chihong Canada is also entitled to a C\$2.5 million termination payment in the event that Selwyn accepts a superior proposal, makes a "change in recommendation" with respect to the transaction, breaches a representation or warranty or commits a breach of the purchase agreement. Any superior proposal must provide for the repayment to Chihong Canada of the deposit funds and the payment to Chihong Canada of the termination payment payable under the purchase agreement.

The purchase agreement also contains limited representations and warranties relating to the company, the company's joint venture interest and Chihong Canada. For a period of 12 months after completion of the transaction, Selwyn has agreed to indemnify Chihong Canada against all losses suffered by Chihong Canada due to any warranties or representations made by Selwyn under the purchase agreement being untrue or due to a breach by Selwyn of any term, agreement or covenant in the purchase agreement. Selwyn said it plans to apply the net proceeds from the sale of its interest in the joint venture, after repayment of debt, toward restarting the ScoZinc Mine in Nova Scotia and for general corporate purposes. The completion of project financing and the achieving of production at the ScoZinc Mine will fulfill Selwyn's longer term objective of becoming a producing mining company over the intermediate term. Selwyn said the sale of its interest in the Selwyn project is seen as the reasonable best alternative for achieving this goal and addressing current obligations to creditors.

The Nature Conservancy Protecting nature. Preserving life." CORPORATE **COUNCIL** on the ENVIRONMENT

We work with people to conserve the lands and waters that sustain us all. Join us in protecting and restoring the places that make Alaska a great place to live, work and play.

Commercial salmon fishing near Prince of Wales Island in Alaska's Tongas National Forest. Annually, healthy salmon runs contribute one billion dollars to

Lead Corporate Partners (\$25,000 & above) Alaska Airlines & Horizon Air · BP ConocoPhillips Alaska, Inc. · Petroleum News

Corporate Partners

ABR, Inc. Accent Alaska.com-Ken Graham Agency Alaska Business Monthly Alaska Journal of Commerce Alaska Rubber & Supply, Inc. Alaska Sportsman's Lodge Alaska Wildland Adventures Booz Allen Hamilton Bristol Bay Native Corporation

Calista Corporation Carlile Transportation Systems, Inc. CIRI Clark James Mishler Photography **CONAM** Construction Company Denali National Park Wilderness Centers, Ltd. Fairweather, LLC Flint Hills Resources Jenner & Block Kachemak Bay Wilderness Lodge

Kennedy & Associates Kim Heacox Photography Koniag, Inc. Northern Economics, Inc. Oasis Environmental, Inc. Pacific Star Energy Stoel Rives, LLP Trident Seafoods Corporation Udelhoven Oilfield System Services, Inc.

Liquidity and capital resources

In April 2012 Selwyn entered into a C\$10 million debt facility with Waterton

see SELWYN ZINC page 23

The Nature Conservancy

715 L Street · Suite 100 · Anchorage, AK 99501 · alaska@tnc.org · 907-276-3133 · nature.org/alaska

THANK YOU

the economy of Southeast Alaska

Junior takes on Cameco uranium-gold find

Highly prospective Nueltin Lake project gives small explorer toehold in grassroots effort to define and expand on new discovery

By ROSE RAGSDALE

For Mining News

URU Metals Ltd., a base metals and uranium explorer with interests in Africa and South America, is making a bold foray into Canada in 2013 to investigate the potential of the Nueltin Lake golduranium project held by Cameco Corp., one of the world's largest uranium producers.

URU has signed an option with Cameco to earn a majority interest in the project, which is located in the Kivalliq region of southern Nunavut about 10 kilometers (six miles) north of the Manitoba border.

"Nueltin Lake represents a rare opportunity to become involved on the ground floor of a new polymetallic mineral discovery, where the high technical and financial risks associated with making a discovery on a grassroots project have already been satisfied. We get to go to work defining the ultimate size of the potential resource." -Roger Lemaitre, CEO, URU Metals Ltd.

The Nueltin Lake granite terrane straddles the Nunavut-Manitoba border and lies within the Southern Hearne Domain of the Western Churchill Province. Geological Survey of Canada geologists exploring the area report two anomalous occurrences of primary uranium, thorium and rare earth elements in the Nueltin Lake area are associated with an aplite dyke (56.8 parts per million uranium and 770 ppm thorium) and a pegmatitic seam (610 ppm uranium, 8,839 ppm thorium and 86,153 ppm rare earth elements) within the Nueltin granitic suite. Parallel-trending trace element patterns indicate that the anomalies most likely represent late-stage, highly fractionated melts from the Nueltin granite.

The Nueltin Lake project consists of 34 mineral claims and 1 mineral lease covering a combined area of about 27,279 hectares (67,406 acres) that hosts the Sandybeach gold-uranium zone, a bedrock gold-uranium discovery made by Cameco in 2008 where the explorer encountered



previously unknown mineralization at depths less than 100 meters from surface in drill core with assay grades up to 8.95 g/t gold over 5.95 meters, 3.27 g/t gold over 7.25 meters, and 0.23 percent U3O8 over 1.25 meters.

Cameco's 15-hole, 1,553-meter diamond drill program, the first and only drill campaign ever conducted on the project, was designed to test for the presence of the bedrock source associated with three clusters of multiple gold-uranium mineralized boulders located over a 1.5-kilometer by 0.5-kilometer area that were discovered in the 1970s. Intermittent prospecting by various project operators between 1984 and 2008 encountered several high-grade polymetallic (uranium, gold, molybdenum, copper, tungsten, cobalt, and nickel) boulders believed to be proximal to their bedrock source, the most significant assaying up to 13.68 percent U3O8 and 2,080 g/t gold.

Mineralization was intersected by Cameco in three of the 11 drill holes collared to test geophysical targets in the vicinity of the boulder clusters. The mineralization that was encountered remains open in both directions along strike and at depth and has never been followed-up by any subsequent drilling program.

Mineralization at the Nueltin Lake project appears to be imaged by the induced polarization geophysical technique. The Sandybeach area on the project contains several IP anomalies that remain untested by drilling. The IP anomalies directly associated with the three mineralized drill holes extend several hundred meters along strike and have not yet been tested by drilling.

URU said it is eagerly anticipating the commencement of its first drilling program this summer to follow-up Cameco's discovery.

The Nueltin Lake project is located on lands that are currently subject to a land treaty negotiation between the Government of Canada and the Sayisi Dene and Northlands Denesuline First Nations that, if successfully completed, would give the First Nations ownership of surface and mineral rights on the project. If the land claim is successful, URU said it and Cameco would likely have to negotiate cooperative agreements with the First

see NUELTIN LAKE page 22







CUSTOM DESIGNED TO MEET YOUR SPECIFICATIONS

- Modular Camp Facilities
- Mine Dry
- Laundry Facilities
- Office Facilities
- Control Rooms
- Sleeper & Wash Cars
- Kitchen and Dining Halls
- Recreation Rooms & TV Lounges
- First Aid Facilities
- Conference Rooms

(509) 248-8616 Toll-Free: (877) 929-9902 office@mthousing.net | www.mthousing.net

continued from page 21 NUELTIN LAKE

Nations under which the rights of all parties, including the mineral rights of Cameco and URU on the project, would be respected.

Option agreement

Under the terms of the option agreement, URU must spend C\$2.5 million on exploration over the next three years (C\$550,000 in 2013, C\$1 million in 2014 and C\$1 million in 2015) to earn a 51 percent stake in the project. On completion of this first option, URU can spend a further C\$8 million on exploration over a fouryear period to earn an additional 19 percent interest in the project.

On successful completion of both options, the junior would have earned a 70 percent interest in the project by spending C\$10.5 million on exploration over seven years. URU will be the project operator over the option earn-in period.

After URU completes its earn-in requirement under the option agreement, the parties agreed to enter into a standard joint venture agreement, the form of which

"Nueltin Lake represents a rare opportunity to become involved on the ground floor of a new polymetallic mineral discovery, where the high technical and financial risks associated with making a discovery on a grassroots project have already been satisfied. We get to go to work defining the ultimate size of the potential resource." -Roger Lemaitre, CEO, URU Metals Ltd.

has already been agreed to and appended to the option agreement.

Upon satisfaction of the requirement to spend C\$550,000 by Dec. 31, 2013, URU will have the right to terminate the option agreement at any time by providing 30 days written notice to Cameco.

Until URU exercises the first option, title over the project will remain in Cameco's name. Upon exercise of the first option and if completed, the second option, title as tenant-in-common would be transferred to URU 51 percent and 70 percent, respectively.

Under the joint venture, should Cameco retain a 20 percent interest in the project, they will have the right, but not the obligation, to market the company's share of uranium product from the project. Should URU retain at least a 50 percent interest in the project, the company will have the right, but not the obligation, to market Cameco's share of all mineral products except uranium derived from the project.

Should a mineral discovery be made on the project, a bankable feasibility study be completed, and a decision to mine approved, the joint venture, and if Cameco retains a 20 per cent interest in the project, Cameco, will have a one-time option to purchase 100 percent of any uranium produced in yellowcake concentrate form from the joint venture property at the greater of 90 percent of the monthly average of the daily Ux Consulting Company Broker Average Price in which the concentrate is produced, or the monthly average daily Ux Consulting Broker Average Price should that price be lower than US\$35.00 per pound U3O8.

The project is also subject to an existing combined 3 percent net smelter royalty payable to two geologists who initially

NOW WORKING IN THE FOLLOWING LOCATIONS:

SEATTLE ALASKAN ARCTIC KUWAIT BOSTON MOBILE FERNDALE McKENZIE RIVER PORT ANGELES LOS ANGELES SINGAPORE DUTCH HARBOR IRAQ OLYMPIA ENSENADA GRAYS HARBOR LONG BEACH BREMERTON

VANCOUVER, B.C. **ASTORIA** LONGVIEW VALDEZ PUERTO PEÑASCO ANGOLA RAINIER KALAMA BENICIA COOS BAY

SAN FRANCISCO VANCOUVER, WA OAKLAND RICHMOND MARTINEZ HOMER STOCKTON PORT CLARENCE

NICARAGUA EL SEGUNDO SEAL BEACH BELLINGHAM BUSAN SAN NICOLAS ISLAND DAKAR WHITTIER ANCHORAGE PORTLAND NIGERIA HOUSTON SEWARD TAMPICO ANACORTES SACRAMENTO NEAH BAY And the second s ULSAN

LEWISTON SAN CLEMENTE ISLAND SAN DIEGO SHANGHAI HONOLULU FREEPORT BUENOS AIRES SAKHALIN ISLAND ST. JOHN MISSISSIPPI AFRICA ADAK PORT HUENEME NARRAGANSETT BAY

Every day, all over the world, Foss captains and crews push to be the best in some of the toughest conditions on earth. Explore the global expertise that makes us a leader in maritime services. Call 800.426.2885 or cruise to fossmaritime.com.



TACOMA

WAKE ISLAND

brought the project to Cameco's attention. The NSR does have buy-out provisions exercisable at the sole option of the joint venture.

Win-win opportunity

"We are delighted to be able to announce our option over the Nueltin Lake gold-uranium project, which is an exciting new project for the company, located in a great mining jurisdiction," URU Metals CEO Roger Lemaitre said in February.

"Nueltin Lake represents a rare opportunity to become involved on the ground floor of a new polymetallic mineral discovery, where the high technical and financial risks associated with making a discovery on a grassroots project have already been satisfied. We get to go to work defining the ultimate size of the potential resource," explained Lemaitre, who became familiar with the project when he ran Cameco's global exploration operations before leaving to help found URU Metals in 2008.

"What interested me about the project is it has a fairly lengthy, but limited exploration history," he said.

After Cameco made the Sandybeach uranium-gold discovery at Nueltin Lake in 2008, the company decided to cut back on exploration in 2009 during the global recession.

"They couldn't do everything they wanted. Since 2009, the project has sat idle. Last year, Cameco decided they would like to find a partner for the project. Since I was intimately familiar with the project, we decided we would like to become Cameco's partner," said Lemaitre during a recent interview.

LeMaitre said the most interesting thing about the property for URU is that the mineralization encountered so far is pretty much open in every direction for several hundred meters. It also fits the junior's strategy of identifying, investing and developing the next generation of accretive mineral project opportunities.

"So it's a pretty rare opportunity for a junior company like (us) to get into basically a brand new discovery at this early stage, where hopefully the definitions and economies of the mineralization will grow as we drill more holes," he observed.

Because Cameco is most interested in having someone work on the property, the major is not asking URU for any signifi-

see NUELTIN LAKE page 23



Always Safe. Always Ready.

Worldwide Maritime Transportation • Marine Logistics • Engineering • Full Service Shipyard



Comprenensive Geologic Services

- ▲ Geologic Consulting
- ▲ Geologic Staffing

- Logistics/Operation Coordination
- **Remote Site Management**
- **GIS Services**
- **Permitting Assistance**

- **Claims Administration**
- **Equipment Rental**

Dedicated to responsible development of Alaska's resources.

11401 Olive Lane Anchorage, Alaska 907-522-4664 www.alaskaearthsciences.com

continued from page 20 **SELWYN ZINC**

Global Value, L.P. from which it has drawn down the full C\$10 million available under the Waterton Facility. After making the second C\$1.5 million principal repayment to Waterton on Jan. 2, the company has been taking steps to preserve a level of cash flow sufficient to maintain current operations. As previously disclosed, without securing additional financing, the company would not have sufficient working capital to fund operations.

In late December and early January, Selwyn negotiated a term sheet with a potential lender for a bridge financing facility and was working towards closing. The funds from the bridge facility would have been used to extinguish the Waterton Facility and would have provided additional working capital. The repayment terms of the bridge facility would have provided the company with an extended time period for repayment, and thus increased financial flexibility. After extensive due diligence and the completion of full loan documentation, the potential lender advised Selwyn that it no longer wished to complete the transaction.

The company said its liquidity position has deteriorated as a result of various factors, including an inability to secure additional sources of financing to fund its future obligations under the JV agreement or for the restart of its ScoZinc Mine in Nova Scotia, and its obligation to make payments under the Waterton Facility.

Selwyn said that absent the transaction, and in light of current equity market conditions, it is unlikely that the company would be able to raise the funds necessary to maintain operations and achieve its objectives, and as a result, there has been significant doubt cast on the company's ability to continue as a going concern. In addition, absent the transaction, Selwyn also would need to raise funds to meet any required commitments to complete the pre-development program objectives under the terms of the JV agreement. A failure to raise such funds would result in a dilution of its 50 percent interest in the joint venture.

Current status of Selwyn Project

On Nov. 19 Selwyn announced that the joint venture's management committee had confirmed a plan and budget for the completion of a feasibility study based on the revised 3,500-metric-tonsper-day mining and milling plan.

The company expects work on the feasibility study will be completed by early April, with finalization of the study expected in May.

Earlier, Selwyn had provided investors with guidance on the main parameters of the planned mine, mill and infrastructure development. The key remaining activities are finalization of the mine design and production schedule, which was to be undertaken by the joint venture staff working with Tetra Tech mine group based in Denver; and secondly, completion of the final phase of metallurgical test work that is focused on evaluation of opportunities to reduce energy requirements of the fine grinding in the re-grind circuit and improvements in lead recovery. With completion of these sectors, surface facilities will be finalized and the joint venture company had planned to file a project report with the Yukon Environmental and Socioeconomic Assessment Board and commence the environmental assessment process for the project and project infrastructure.

A geotechnical report was completed that indicates more favorable ground conditions than had previously been determined in the initial proposed mining areas. AMEC reviewed geotechnical drill-hole data for the XY Central and Don deposits and evaluated ground conditions in recently re-opened underground development that was completed in 1981 (at XY Central deposit) by previous operators. With this new information, the increase in stope spans was confirmed, and the mining plan has been modified and the production plan formalized.

As of March 4, there remained about C\$2.97 million of cash in the JV account into which Chihong Canada contributed C\$100 million when the joint venture was established. Upon completion of the remaining JV expenditures, Chihong Canada will have earned a 50 percent interest in the joint venture. The company expects that, under the terms of the JV agreement, Selwyn will be required to contribute additional funds to the joint venture in order to complete the pre-development program objectives. The company also expects that, in the interim period until the transaction is completed, it will be able to use the deposit funds to satisfy its required contributions toward predevelopment program objectives.

cant compensation for the option.

"We don't have any cash changing hands and no shares changing hands, so we can fund the program out of our cash reserves right now, which is fantastic for us," Lemaitre enthused. "One of the sweeteners for Cameco is that they have the right to market any uranium found on the property, and that works out for us because we're not a uranium marketing agency. Also, they are all about increasing their production, their doubling strategy, so on completion of a bankable feasibility study and subject to the joint venture agreement, Cameco has got the option to purchase 100 percent of the uranium produced, providThe Nueltin Lake project is located on lands that are currently subject to a land treaty negotiation between the Government of Canada and the Sayisi Dene and Northlands Denesuline First Nations that, if successfully completed, would give the First Nations ownership of surface and mineral rights on the project.

ing us with an end user for the uranium.

"So it is a great opportunity for them to augment their production with very little risk and a great opportunity for us to get an exploration property at a very reasonable price," Lemaitre added. \bullet



We were there at the beginning.

With 46 years of experience, we're experts on arctic conditions and extreme weather!

Solutions for Petroleum, Mining, Construction, & Timber Industries using top quality products.

Come see us; ask us questions.



1716 Post Road Anchorage, AK 99501

907.376.7275 Fx: 907.376.7269 1201 Hay Street

907.456.4414 1600 Wells Street Fairbanks, AK 99701



Please visit our new website, www.jackovich.com

Wasilla, AK 99654

AA

Momma is a miner.



Hitachi EH1700 Haul Trucks and Hitachi EX1900-6 Excavator at the Rock Creek Mine, Nome, Alaska

EX5500 as purchased by Fairbanks Gold Mine. New model EX5600 will be delivered in March of 2012

IN THE WORLD

HEACH

Hitachi, the best in construction & mining technology.

CMI, the best sales and product support lineup.

IN YOUR CORNEP

The Winning Team.



Bob Gerondale Operations Manager



Wade Gies Fairbanks Branch <u>Manag</u>er



Construction Machinery Industrial, LLC

Anchorage, Alaska	(907) 563-3822	(800) 478-3822
Fairbanks, Alaska	(907) 455-9600	
Juneau, Alaska	(907) 780-4030	(888) 399-4030
Ketchikan, Alaska	(907) 247-2228	



HITACHI

ALWAYS ORANGE