

## NEWS NUGGETS

Compiled by Shane Lasley



SHANE LASLEY

Lying alongside the Elliot Highway about 70 miles north of Fairbanks, the Livengood project hosts a deposit with 15.7 million ounces of gold in 802 million metric tons of measured and indicated resource averaging 0.61 grams per metric ton gold.

### Hanneman named Tower Hill CEO; \$6.7M work program for Livengood

International Tower Hill Mines Ltd. Feb. 1 said it has paid the US\$14.7 million payment due on certain claims associated with its Livengood gold project in Interior Alaska. Following the completion of the land payment, Tower Hill had US\$7.5 million in cash, most of which the company will use to carry out a US\$6.3 million work program focused largely on improving the economics of developing a mine at Livengood. In September, Tower Hill released results of an initial phase of optimization work in a pre-feasibility study for Livengood, which is about 70 road miles northwest of Fairbanks, Alaska. The mine contemplated in the PFS involves a 52,600-metric-ton-per-day mill (about half the size envisioned in a feasibility study released in 2013) that would produce 6.8 million ounces of gold over a 23-year mine life, or roughly 294,100 oz annually. This year's work program will focus on improving the mineralization and alteration models used to support the resource block model, evaluating alternative block models for production schedule opportunities, and completion of several phases of metallurgical work to better define and optimize the flowsheet and recovery parameters. The 2017 program has been designed to target those aspects that could deliver the highest increase to the project's net present value for the least expenditure. Work is also planned to advance the environmental baseline efforts needed to support future permitting. Karl Hanneman, who was previously Tower Hill's chief operating officer, has been approved by the company's board of directors to take over the role as CEO. "The board has unanimously backed Karl to be the new leader of the company and think that he is the best candidate to lead this team as ITH embarks on a work program to continue de-risking the project down an eventual permitting path," said Tower Hill Chairman Marcelo Kim. Hanneman, who has more than 35 years of Alaska-based mining industry experience, is well known and respected mining engineer in the state. Prior to joining Tower Hill, he played a key role on the team at Teck that successfully resolved significant permitting issues at the Red Dog zinc mine in Northwest Alaska. As Alaska Regional Manager for Teck, Hanneman also played a key role in the exploration, development and permitting of the Pogo gold mine in Interior Alaska. Hanneman has led or participated in a number of industry and State of Alaska sponsored organizations, including the Alaska Minerals Commission, Council of Alaska Producers,



KARL HANNEMAN

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SHANE LASLEY

The more than 1 million feet of drilling completed since 1988 has outlined a deposit at Pebble that hosts 56.8 billion pounds copper, 70.4 million ounces gold, 3.4 billion lbs molybdenum and 343.6 million oz silver. The Pebble Partnership now hopes to apply for permits to mine this extraordinary deposit.

### PEBBLE

# Pebble stars align

Trump, expected EPA treaty, improved markets bode well for Alaska project

By SHANE LASLEY

Mining News

After six tumultuous years, 2017 is shaping up to be a turnaround year for the enormous Pebble copper-gold-molybdenum project in Southwest Alaska.

"The stars that were previously askew, they seem to be lining up," Northern Dynasty CEO Ron Thiessen told Mining News.

This star realignment is reflected in a US\$37.4 million financing the Pebble project owner closed on Jan. 26. Underwritten by a trio of renowned financiers, this financing involved the issuance of 20.24 million shares at US\$1.85 per share, not bad for a company whose stock was selling for a mere US27 cents per share this time last year.

Northern Dynasty's share price enjoyed healthy gains throughout 2016, reaching US91 cents per share by early October. The election of Donald Trump, however, helped push the stock to a high of US\$3.45 per share on Jan. 24.

While the election of a U.S. President focused on the economy played a major role in this meteoric rise, an upturn in metals prices and mining markets, a pending resolution of a court battle with the U.S. Environmental Protection Agency over the regulator's efforts to severely restrict the project prior to permitting, renewed interest by several global mining companies and a new strategy for finally advancing the project into permitting is fueling investors' appetite for this company that appears to have made a turn for the better.

### Game changer

With roughly 56.8 billion pounds copper, 70.4



RON THIESSEN



TOM COLLIER

million ounces gold, 3.4 billion lbs molybdenum and 343.6 million oz silver in measured and indicated resource, Pebble is an enormous store of metals that could support a world-class mine for more than a century. "This is a mine that has the capacity to operate 150 years," Thiessen explained.

This multi-generation deposit, however, is located in the Bristol Bay region of Alaska, famed for a sockeye salmon fishery that is a cultural and economic asset to the people that live and work in the region.

This proximity to the Bristol Bay watershed garnered staunch opposition from environmental groups, fisherman and many Alaska Natives in the area that are concerned a Pebble mine could harm the fishery.

"Regardless of federal politics, the people of Bristol Bay remain steadfast in our dedication to protecting Bristol Bay and in opposition to mines like Pebble that threaten our traditional way of life," United Tribes of Bristol Bay Executive Director Alannah Hurley said in a Jan. 24 statement.

Under the Obama administration, the opponents of Pebble enjoyed an ally in the EPA, which tested the bounds of its authority by taking regulatory action at the Pebble project before the permitting process began.

After compiling regional data and putting together some hypothetical mining scenarios for Pebble, the environmental agency decided to put strict limitations on the size of a mine that could be permitted for the enormous metals deposit.

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## NORTHERN NEIGHBORS

Compiled by Shane Lasley



TERRAX EXPLORATION

TerraX Chairman and CEO Joe Campbell (left) and Vice President of Exploration Tom Setterfield pause for a photo while prospecting the Yellowknife City Gold project. The work by this duo and the rest of the TerraX exploration team has identified numerous drill targets and prospects on an expansive land package a few miles away from the Northwest Territories capital.

## TerraX triples Yellowknife City Gold

TerraX Minerals Inc. Feb. 1 said it has tripled the size of its Yellowknife City Gold project by staking 253 square kilometers (98 square miles) of mining claims adjacent to the Northwest Territories project. The company said this additional ground was staked based on extensive research completed on prospective surrounding lands over the past three years. The three new land blocks added to the Yellowknife project include: a northern extension to the Northbelt property covering prospective geology on the west side of the greenstone belt that host the historic Con and Giant gold mines; a block on the east side of the Southbelt property covering the southern extension of the prolific Campbell Shear, the source of more than 5 million ounces of gold production at the Con Mine; and a large block of ground in the Burwash sediments, which hosted four other historical mines in the area. TerraX has begun compiling the historical data on the new ground and is planning comprehensive geophysical, geochemical, mapping and prospecting surveys across these properties in 2017. This plan follows the pattern of exploration that has resulted in gold discoveries the Northbelt property and identified exciting new drill targets on the Southbelt claim block. "Since the beginning of the Yellowknife City Gold project we have pursued a goal of assembling and controlling a major Canadian gold district. The acquisition of this highly prospective new ground completes that goal and provides TerraX shareholders with additional opportunities for high-grade gold discoveries," said TerraX CEO Joseph Campbell. "We are very much looking forward to our 2017 drill campaigns, which are expected to commence shortly."

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## ● COLUMN

## Mining deaths fall to record low in 2016

Miners expect change, but guides such as high grades, good infrastructure, rule of law and simple metallurgy to remain constant

By CURT FREEMAN

For Mining News

The year just past was many things for the mining industry, but one of the bright spots came from the Mine Safety and Health Administration, an agency not known for awarding happy faces or gold stars. In 2016, the mining industry experienced only 25 deaths in U.S. mines, the lowest level ever recorded. This, despite the industry having more than 330,000 miners working in 13,000 mines across the country. The leading cause of death in both coal and metal/nonmetal mines was machinery and powered haulage equipment. MSHA acknowledged that every year since 2009, injury rates in American mines have declined and death rates fell below all previous annual death rates, except in 2010 when the Big Branch coal mine disaster occurred. While zero deaths in a year is the ultimate goal, 2016 statistics drive home the point that you are safer in an operating U.S. mine than you are in your own home.

But that was last year, what can the industry, in general and Alaska in particular, expect in 2017? Virtually everyone thinks the new Trump administration will have profound impacts on the U.S. and world markets for commodities. Trouble is, talk to 10 people and you get a baker's dozen opinions on just what those impacts are going to be. Regardless of your viewpoint, however, some constants have been and will remain guides to the mining industry: high grade is preferable to low grade; good infrastructure is preferable to poor infrastructure; rule of law is preferable to rule of dictator; simple metallurgy is preferable to complex metallurgy; and local support is preferable to local opposition.

Good hunting in 2017!

## Western Alaska

**GRAPHITE ONE RESOURCES** announced 2016 milestones and an update on 2017 plans at its Graphite Creek graphite deposit on the Seward Peninsula. The 2016 milestones included raising more than US\$2.8 million in new financing, confirmation of high performance, repeatability and stability of the company's spherical graphite, all required in high-quality graphite for lithium-ion batteries, and continued testing by potential end users of exploratory grade samples of coated, spherical graphite. Millrock's plans for 2017 include completion of preliminary test work on its mineral processing circuit for producing high-grade graphite concentrate from raw ore and completion of a preliminary economic assessment by the end of January 2017. Most components of the PEA are complete, with some delays reported due to the time required to complete the company's review and approval process.

**REDSTAR GOLD** released final assay results from its seven-hole, 1,505-meter 2016 drill program at its Unga gold-silver project near Sand Point. Drilling has expanded high-grade gold-silver mineralization in the Shumagin zone to at

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least 950 meters of drilled strike length, to depths of at least 330 meters below surface. Mineralization is not constrained to a northeast-plunging shoot as previously thought. Breccia and stock-work zones widen at depth towards the southwest, indicating further expansion potential along strike on the Shumagin zone. The overall size of the system has expanded 300 meters east to Bunker Hill, and some 400 meters to the southwest of the deepest previous drill hole BM-01 drilled in the 1990s. Expansion potential exists for an additional 3 kilometers to the Orange Mountain area, another hydrothermally altered zone on the trend. Significant drill results on the Shumagin trend include hole 16SH019, with 0.9 meters grading 14.95 grams per metric ton of gold, starting at 264.6 meters depth; and hole 16SH020 with 1.15 meters grading 11.3 g/t gold starting at 270.45 meters. At the Bunker Hill zone, about 300 meters to the northeast of the Shumagin zone's Main Breccia, mineralization extends more than 200 meters in quartz-adularia-carbonate breccias identical to exposures along the Main Breccia. Significant drill results on the Shumagin trend include hole 16SH022, with 1.5 meters grading 16.97 g/t gold starting at 156.5 meters depth. The company anticipates initiating a larger drill program during the spring of 2017 to focus on expanding the Shumagin zone along strike to the southwest.

**COPPERBANK RESOURCES CORP.** announced that The Aleut Corporation, an Alaska Native regional corporation and the underlying property owner for the company's Pyramid and San Diego Bay projects, has agreed to take an equity position in the company. Aleut Corporation has agreed to acquire 1,687,500 shares of the company at a price of C8 cents per share. The San Diego Bay prospect is typified by 40 square kilometers of gossan, strong hydrothermal alteration and intrusive rocks consistent with porphyry systems such as the adjacent Pyramid deposit. All porphyry alteration facies have been observed at San Diego Bay, including zones of potassic, advanced argillic, phyllic and pyrite zones along with widespread areas of high-temperature clay alteration. Strongly anomalous pre-

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## FREEMAN

cious and base metal values were collected by previous operators and cobbles of copper oxide mineralization have been identified by local Aleut shareholders on beaches adjacent to the alteration zone. The company believes that San Diego Bay may contain overlapping hydrothermal systems, including potential lithocaps.

### Interior Alaska

**FREEGOLD VENTURES LTD.** provided an update for its Golden Summit project in the Fairbanks District. Earlier in 2016 the company announced the results of a preliminary economic assessment at the project. Using a US\$1,300 per ounce gold price, the PEA evaluated a two-phase, 24-year open pit mine, generating two gold streams with each operating at 10,000 metric tons per day for 2,358,000 ounces of doré produced over life of mine. Processing operations for the oxide and sulfide mineralized materials are heap leach and bio-oxidation, respectively. As a follow up to the PEA, additional metallurgical work to further refine the treatment method to the sulfide material is being planned in order to further enhance the overall project economics. In particular, further oxidation treatment on all identifiable sulfide materials as well as ultra-fine grind test work will be undertaken in an effort to explore grind size versus recovery relationships. Limited drilling to delineate additional oxide resources is also being planned for 2017. A total of 717 soil samples were recently collected and have identified a gold-in-soil geochemical anomaly west of the main resource at the Dolphin deposit. Initial drilling will be focused to the north of the current mineral resource where previously completed rotary air blast drilling indicates that better grade oxide material may be present outside the current resource base. Exploration drilling also will focus on areas where the previous induced polarization/resistivity ground geophysics suggests the presence of shallow intrusive rocks to the southwest of the deposit.

**INTERNATIONAL TOWER HILL MINES** said it has closed a US\$22 million financing for its flagship Livengood gold project. The company indicated that it intends to use the funds to complete acquisition of certain mining claims and related rights in the vicinity of the deposit, estimated at some US\$14.8 million, for continuation of optimization studies to further improve and de-risk the project, for required environmental baseline studies, and for general working capital purposes.

**FREEGOLD VENTURES LTD.** also announced final drilling results from a seven-hole, 3,038 meters drilling program at its Shorty Creek project near Livengood. The new results are from five holes, SC1603 to 1607 (2,019.8 meters), collared on Hill 1710, located 2.5 kilometers northwest of previous drilling on Hill 1835. The Hill 1710

drilling focused on a portion of a 6,000-meter-by-1,500-meter magnetic anomaly where partial soil coverage indicates a coincident copper-molybdenum soil geochemical anomaly. To date ground geophysics and soil geochemical surveys have been conducted over only 2,500 meters of this magnetic anomaly. The holes at Hill 1710 were spaced about 400 meters apart starting on the western edge of the soil geochemical anomaly. All of the holes intersected copper and molybdenum mineralization with the copper values increasing as the drilling moved to the northeast. Coincident with the increased assay values was the increasing volume of quartz feldspar porphyry intrusive intersected in holes SC 16-06 and SC 16-07, the two most northeastern holes. Hole 16-03 was the most westerly hole drilled at Hill 1710 and returned 172.6 meters, grading 0.03 percent copper and 0.034 percent molybdenum. Hole SC 16-06 intersected quartz-feldspar porphyry with a coincident higher grade interval, including 0.11 percent copper and 0.02 percent molybdenum, while hole SC 16-07 intersected 0.11 percent copper and 0.011 percent molybdenum from surface to 159 meters depth. Four other areas of the project remain untested by drilling. These targets, including Hill 1870, Steel Creek, Hill 1890 and Quarry, possess geochemical and/or geophysical anomalies that the company hopes to drill test in the future.

**ENDURANCE GOLD** released additional assay results from the 2016 drill program on its Elephant Mountain gold property near Manley Hot Springs. During 2016, three diamond drill holes were completed on the South Zone and one diamond drill hole was completed on the North Zone for a total of 598 meters. At the North Zone target, rubble-crop defines a one-square-kilometer alteration zone consisting of disseminated pyrite-arsenopyrite in pervasively silicified, sericite, and clay-altered granodiorite associated with a gold-arsenic soil anomaly. This area was previously drill tested by Placer Dome Inc. and others and resulted in six drill holes over a 550 meters across and 100 meters vertical expanse returning gold values in excess of 100 parts per billion gold. Mineralization was hosted in pervasively silicified, sericite, and clay-altered granodiorite similar to alteration and mineralization observed on surface. At the North zone, hole EL16-13 was drilled in this target and intersected 150 meters of 1.5 percent pervasive disseminated pyrite and arsenopyrite-bearing quartz veinlets starting at surface. The entire length of the drill hole is in-part oxidized with the oxidation related to fractures and oxidized quartz-sulfide veinlets. Significant assays from hole EL16-13 include 0.40 g/t gold over 147.1 meters encompassing more than 48.2 meters averaging 0.63 g/t gold. Two additional holes were completed at the South zone, with hole EL16-15 returning 0.52 g/t gold over 3.04 meters encompassing 1.06 meters averaging 1.13 g/t gold. This intersection is associated with one of the zones of clay gouge

breccia and fault rubble. Hole EL16-16 returned 0.59 g/t gold over 2.44 meters and 0.48 g/t gold over 2.44 meters. These intersections are associated with minor pyrite and arsenopyrite associated with a quartz veinlet zone in syenomonzonite and a clay gouge zone in silicified and carbonate altered diorite and sediments. The company is recommending additional geophysics, soil geochemistry and diamond drilling for future programs.

**NORTHERN EMPIRE RESOURCES CORP.** said it filed a National Instrument 43-101 technical report with results from its 2016 exploration efforts at the Richardson gold project near Fairbanks. The report indicates that the recognition of associated fault zones and high-grade gold samples collected in 2016 channel sampling at the Democrat Pit present a compelling target. Geophysical re-interpretation and follow-up ground geophysical work have identified several magnetic anomalies which are coincident with known faults, gold in soil anomalies and drill-hole gold intercepts (particularly at the Shamrock area). Magnetic data appear to show an earlier structural fabric which may be related to gold mineralization. The recognition of lineations at the Democrat Pit parallel to the northwest trending Richardson lineament suggest a right-lateral sense of movement along this structure. Recommendations for 2017 include 1) expansion of the Democrat Pit exploration area by trenching north of the current Pit and collecting additional trench samples and structural data; 2) diamond drilling is recommended at the Democrat area, targeting high-grade structures away from the Democrat Pit; 3) additional trenching in the Shamrock area is recommended along with structural mapping and follow-up drilling should the trench results be positive; 4) property-wide structural mapping is highly recommended along with additional ground magnetic surveys; and 5) continued soil sampling on areas covered widely in 2016 and, along structures identified in the 2016 ground geophysics that have not already been covered by soil geochemistry.

**CONTANGO ORE INC.** announced final drill results from its 2016 Phase 3 drilling program at the Tetlin gold project, a joint venture with a wholly owned subsidiary of Royal Gold Inc. The partners completed 19 core holes in the 2016 phase 1 program, 62 holes in phase 2 and 37 holes in phase 3. Drilling in 2016 totaled 20,522.8 meters (67,335 feet). Significant new results from the phase 3 drilling at the North Peak zone included hole 16277, which returned 12.52 meters grading 2.56 g/t gold; hole 16278, which returned 14.05 meters grading 10.58 g/t gold; hole 16281, which returned 8.53 meters grading 22.01 g/t gold; hole 16300, which returned 15.05 meters grading 5.15 grams of g/t gold; hole 16302, which returned 22.74 meters grading 26.61 g/t

gold, hole 16304, which returned 21.20 meters grading 11.86 g/t gold and an additional 22.55 meters grading 5.49 g/t gold; and hole 16305 which returned 29.54 meters grading 7.17 g/t gold. The company indicated that it plans to commence a 6,000-meter drill program in February at the Main and North Peak zones. CORE is still on-track to release a revised resource estimate later in the first quarter.

### Northern Alaska

**GOLDRICH MINING COMPANY** and partner NYACAU LLC announced year-end placer gold production figures for their Chandalar mine in the southern Brooks Range. During 2016, the operation produced 10,209 ounces of raw alluvial gold, equivalent to roughly 8,200 ounces of fine gold (approx. 800 fine). Production costs totaled \$961/oz., including operating costs and equipment payment costs. Total 2016 production represents a 117 percent increase over the 2015 mining season. Total revenue exceeded US\$10 million. Mining expanded beyond previously outlined resources, and the company obtained permits to further expand operations in 2017. Production estimates for 2017 were not released.

### Southeast Alaska

**HECLA MINING COMPANY** reported preliminary fourth quarter and year-end 2016 production results for its Greens Creek mine on Admiralty Island. The mine produced 9.3 million oz. of silver in 2016, the highest annual silver output since Hecla acquired 100 percent of the project in 2008. Greens Creek mine also produced 53,912 oz. of gold for the year. For the fourth quarter, 2.2 million oz. of silver and 14,415 oz. of gold were produced. Increased silver production for the year resulted from higher grades and greater recovery, and lower gold production stemmed from lower grades. The mill operated at an average of 2,229 short tons per day in 2016.

**COEUR MINING INC.** announced fourth quarter and year-end 2016 production results from its Kensington gold mine near Juneau. Fourth-quarter production totaled 33,688 oz. of gold, a significant increase over the 26,459 oz. of gold produced in the previous year. During the fourth quarter, the mine processed 163,410 tons of ore grading 0.22 oz./t of gold. Recovery averaged 94.4 percent. For 2016, the mine's output totaled 124,331 oz. of gold, a slight decrease from 126,266 oz. of gold produced a year earlier. For 2016, the mine processed 620,209 tons of ore, grading 0.21 oz./t gold per ton. Average recovery was 94.7 percent. Work continued on the decline into the Jualin zone. Work was 64 percent completed at year-end. Estimated 2017 total production from Kensington is 120,000-125,000 ounces of gold. ●



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## NEWS

## DIRECTORY



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*Located 25 miles northeast of Fairbanks, Fort Knox is the largest gold producing mine in Alaska. During 2016, Fort Knox celebrated two milestone events, the seven-millionth-ounce of gold produced and the 20-year anniversary of commercial operations.*

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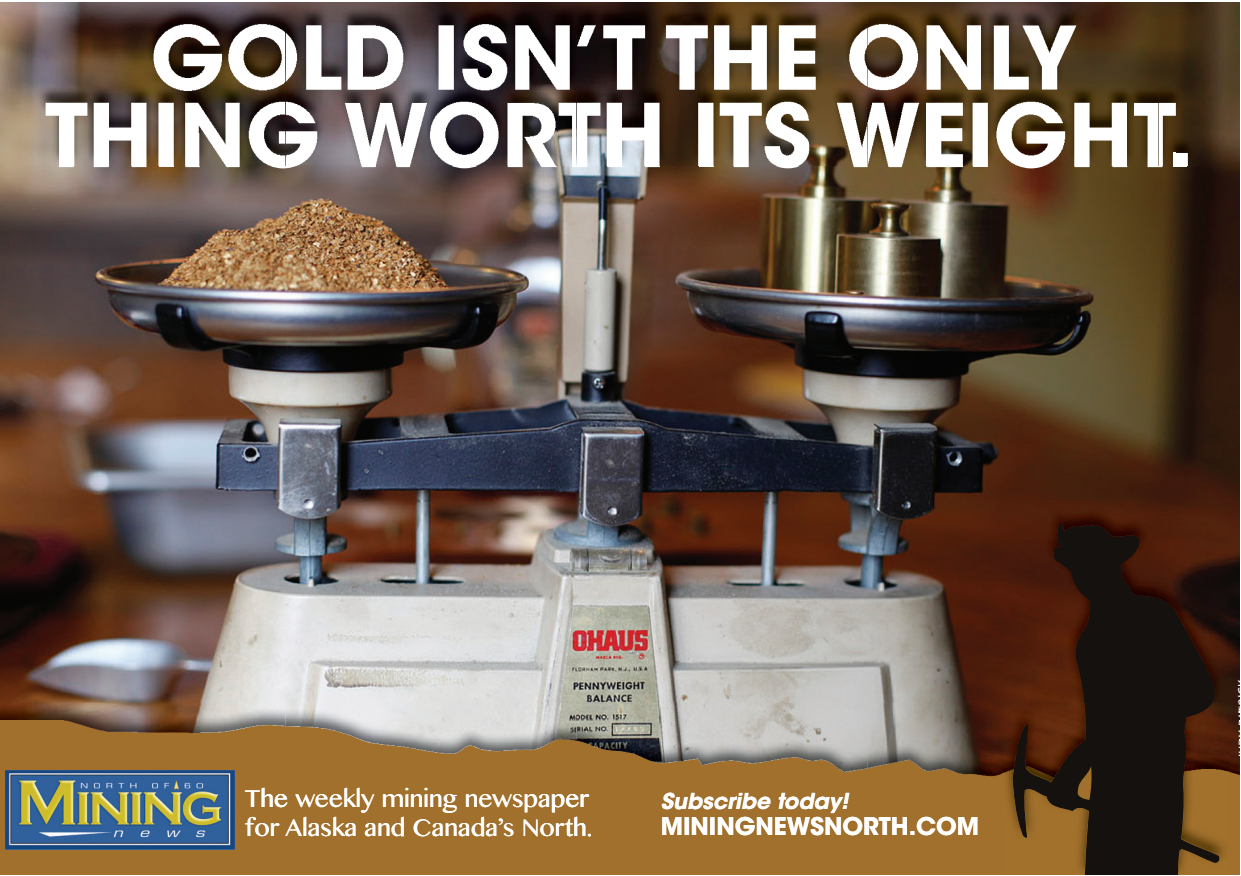
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NOVAGOLD RESOURCE INC.

As the U.S. Army Corps of Engineers closes in on finalizing the environmental impact statement for Donlin Gold, project partners Novagold Resources and Barrick Gold will update the feasibility study for this 39-million-ounce gold project with optimizations identified in recent years.

continued from page 1

## NEWS NUGGETS

Resource Development Council, and the Alaska Miners Association. Tom Irwin, the previous CEO, is transitioning into a part-time position as senior advisor prior to his standing for election to the board at the company's annual general meeting in May. "The fundamentals of the project are compelling: one of the largest gold resources in North America that is not owned by a major, an accessible location in a stable jurisdiction, and a project that is highly leveraged to the gold price," said Hanneman. "Tom's leadership has helped build a strong foundation for progress and I am pleased to have been asked to lead the team on the continued development of this exciting investment opportunity."

## Chugach trades AK coal field for California carbon credits

The Nature Conservancy Jan. 26 announced a deal that secures the sale and permanent retirement of an Alaskan coal field, while ensuring long-term income for an Alaskan Native community. The deal will see the Chugach Alaska Corp., an Alaska Native regional corporation whose traditional lands stretch along the gulf of Alaska from the Kenai Peninsula to the Alaska Panhandle, sell the rights to its Bering River coal field to New Forests, a sustainable forestry and conservation investment manager. New Forests will retire those rights by transferring them to The Nature Conservancy and the Native Conservancy land trust, while generating revenue through the California cap-and-trade carbon market. "This novel investment structure will enable Chugach to manage the Bering River coal field and regional timberlands in a manner that delivers long-term financial security for the Chugach shareholder community as well as significant climate benefits," said Brian Shillinglaw, director of New Forests' United States investment programs. Situated on the eastern edge of Alaska's Copper River delta about 50 miles southeast of Cordova, the Bering River coal field is in an ecosystem known for its glaciers, rivers, rainforest and a vast range of



An aerial view of the eastern edge of Alaska's Copper River Delta, the focus of an innovative deal that safeguards old-growth forests and major unmined coal reserves – while creating long-term income for the region.

wildlife. As part of lands conveyed to Chugach under the Alaska Native Claims Settlement Act, the coastal Native corporation received land and mineral rights covering much of the coal field in 1983. As part of its agreement with New Forests, Chugach will actively manage and maintain the land to retain high carbon stocks in the forests in exchange for the opportunity to sell carbon credits to businesses regulated under California's greenhouse gas pollution reduction program. "As a community-owned organization, Chugach's mission is to provide meaningful opportunities and benefits to our Alaska Native shareholders and descendants today and for generations to come," said Chugach Senior Vice President of Energy and Resources Josie Hickel. "A coal sale and carbon offset project is a unique opportunity to deliver long-term, sustainable economic and financial value for our shareholders and region." The coal rights were transferred in fee to The Nature Conservancy, a non-profit conservation organization, with a restrictive covenant against development held by the local, Native-Alaskan controlled Native Conservancy Land Trust. "This is a precedent-setting carbon conservation accomplishment," said Dune Lankard, on behalf of the Native Conservancy Land Trust. "Preserving the Bering River and Carbon Mountain watersheds not only addresses climate change in a real way, but also protects

the ancestral homelands of the Chugach shareholders and maintains our vibrant subsistence and commercial fishing way of life."

## Donlin Gold partners focus on permits as Corps finalizes EIS

Novagold Resources Inc. Nov. 25 said it is anticipating the environmental impact statement for the Donlin Gold project to be finalized around this time next year. The Donlin Gold Mine being considered in the EIS includes a 53,500-metric-ton-per-day mill that is expected to produce an average of 1.1 million ounces of gold annually for 27 years. During its first five years of operation, this annual average will be closer to 1.5 million oz. Donlin Gold LLC – equally owned by subsidiaries of Novagold Resources Inc. and Barrick Gold Corp. – world class gold project in 2012. The U.S. Army Corps of Engineers, the lead agency for the EIS process, has reviewed the comments submitted on a draft EIS it published late in 2015. In the fourth quarter, all the draft EIS comments were read, reviewed and separated into discrete categories such as water quality, tailings management and spill risks, mercury fate and transport, barging and socio-economics. Novagold said the Corps will determine how to address the comments, including incorporating addi-

tional information and making revisions to the EIS as appropriate. As the Corps finalizes the EIS, Donlin Gold is working towards obtaining the other permits necessary to develop a mine at the roughly 39-million-ounce gold deposit. "Throughout 2017, we will continue to work with state and federal agencies to advance issuance of all other required permits, including the water discharge permit, dam safety approvals, water use permits, fish habitat permits, and land and shoreline lease and right-of-way approvals. The level of teamwork, professionalism and dedication from all of those involved in this permitting process has been remarkable as we jointly remain focused on the end goal – successful completion of the permitting process for a truly unique asset," explained Novagold President and CEO Greg Lang. In conjunction with permitting work, Novagold and Donlin Gold are carrying out optimization studies for the potential mine. "As we approach completion of the EIS and permitting processes, the owners expect to update the feasibility study to reflect these and other changes, which may also include, among other things, third-party owner-operator agreements and other optimization possibilities," explained Lang. Novagold ended its fiscal year, Nov. 30, with US\$105 million in cash and term deposits. The company said this is more than enough to last through the permitting process. In addition to its cash and investments, Novagold holds a 50 percent stake in Galore Creek, a large copper-gold project in northwestern British Columbia. "This project has the potential to be one of the largest, highest-quality, lowest-cost copper producers in Canada," Lang touted. Novagold and its Galore Creek partner, Teck Resources Ltd., continue to build on a strong relationship with the Tahltan Nation, on whose traditional territory the project is situated, and carry out technical studies of the copper-gold project. "We remain confident that these efforts will improve the value and marketability of the Galore Creek project, which we continue to plan to monetize, in whole or in part, to further strengthen our balance sheet and redeploy capital toward the development of Donlin Gold," Novagold's CEO explained. ●

DAVID LITTLE/EPC





The world-class copper-gold-molybdenum deposit at Pebble lies under a broad, sparsely vegetated valley at the upper reaches of the Bristol Bay watershed. This layout provides engineers with a number of options as they attempt to design a mine that is both economically feasible and environmentally sound.

continued from page 1

## PEBBLE STARS

“Outside parties did a mine design that was designed to fail in every aspect and even used methods that have been outlawed in the state of Alaska for a couple of decades,” Thiessen commented on the scenarios considered by EPA.

The Pebble Partnership, a company set up by Northern Dynasty to permit and potentially develop the deposit, found compelling evidence that EPA had a predetermined outcome for Pebble in mind and worked inappropriately close with anti-Pebble groups to devise and execute a plan to limit or prevent the project from entering permitting.

“I think what we have been faced with is an extraordinary attempt to usurp the normal NEPA process,” Thiessen said.

NEPA, the National Environmental Policy Act, provides the framework for environmental impacts of major projects in the U.S. and is a key part of the permitting process.

In 2014, the Pebble Partnership filed a suit action in federal district court in Alaska, alleging that since as early as 2008 the EPA was maintaining an inappropriately close relationship with anti-mine groups, violating the Federal Advisory Committee Act, a law designed to keep curtail “locker room discussions” between federal agencies and private committees.

With the trial nearing its end, by October it had become apparent that EPA and Pebble Partnership would likely reach an agreement that would settle this suit outside of the courtroom before President Obama left office.

Donald Trump’s successful presidential bid, however, changed the dynamics of the negotiations and the outlook for the Pebble project.

“We do think it is going to be a game changer for our project,” Pebble Partnership CEO Tom Collier told Mining News.

### Adjusting to Trump

Collier, who earned a reputation for having a penchant for federal environmental law and bringing adversaries together during a 40-year legal career in Washington D.C., did not expect Trump to prevail on Nov. 8.

“I put a lot of time and thought into how Pebble would move into a Clinton administration and nowhere near as much into a Trump one,” the environmental law specialist admitted.

The unexpected outcome had the Pebble leadership re-evaluating the standing of the enormous copper project.

“Everybody sat back and tried to assess what exactly happened,” Thiessen told Mining News.

In fact, Collier wasted no time. He said that after the Trump presidency became apparent, at around midnight Alaska time, he went right to work and was on the phone

to his contacts on the U.S. East Coast by 2 a.m., 6 a.m. EST.

After adjusting to the surprise outcome, Collier believes that Trump and his cabinet choices will rein in an EPA that enjoyed expanded authority under President Obama.

“The primary question during the Obama administration was environmental overreach,” he said.

This is coming from a Democrat that served as chief of staff to U.S. Department of the Interior Secretary Bruce Babbitt and was charged with managing much of the environmental policies being introduced by Vice President Al Gore.

“One of the things I felt was at the core of what we were trying to do in those days is to make sure we had support in the country for where we were going to take a particular environmental issue,” Collier reflected during a Jan. 30 interview with Mining News.

He believes that federal agencies under the Obama administration pushed the limits of their authority beyond the bounds of broad public support and that played a role in landing Trump the presidency.

### Message of certainty

Scott Pruitt, Trump’s choice to head the EPA, is expected to seriously rein in the expanded powers of the environmental agency.

As Oklahoma’s attorney general, a post he filled until being nominated as EPA administrator, Pruitt was an active fighter of EPA overreach, suing the agency he has been chosen to run on a number of occasions.

Pruitt says that, if he is approved by Congress, he will advocate for environmental protection while keeping EPA within the bounds of law.

During his confirmation hearings Pruitt shared his beliefs that EPA should focus on enforcing the environmental laws already in place and refrain from making major policy shifts that create uncertainty. He said that if companies know the rules they can allocate resources to comply with the regulations, even though they do not particularly agree with them.

“Rule of law is important to economic development; it is important to send messages of certainty; it is important so that people can plan and allocate resources,” he said, answering a question posed by Sen. Dan Sullivan, R-Alaska.

The Pebble project is a prime example.

“We are the posterchild for that point. We spent over US\$700 million getting ready to take a project into permitting and then we were told we couldn’t go into permitting, and that was the first time the agency had done that in its entire history,” Collier said.

Though settling the court case with EPA will have to wait until after Pruitt is confirmed by Congress, the Pebble CEO is hopeful that the incoming EPA administrator will

reverse the previous attempt to keep Pebble out the normal permitting process.

Collier and Thiessen said they are not looking for any special consideration by Pruitt or anyone else in the Trump administration, they are just asking for their mine proposal to be vetted under a normalized permitting process.

Thiessen said the Army Corps of Engineers, which will be the lead agency during the Pebble NEPA process, is “going to go through and look at everything we do and our impacts, and determine if they are the least environmentally damaging, practical alternatives – and hold our feet to the fire.”

“If we cannot demonstrate to regulators, federal and state, that we are not going to damage that fishery, we are not going to get a permit,” he added.

### New Pebble Partnership

The seemingly imminent lifting of the roadblock between Pebble and the NEPA permitting process opens the door for a global mining company to join Northern Dynasty in the Pebble Partnership.

As the largest undeveloped deposit of copper and gold on the planet, Pebble is an attractive target for global-scale mining companies looking to augment their future metals production.

“It is an enormously seductive project in terms of the size of the prize – what’s in the ground and what that could mean for copper, gold and silver in America,” Collier said.

Thiessen said Northern Dynasty is currently in advanced talks with a number of mining companies and the new Pebble partner may be a consortium of three or four of them.

While it has been assumed that no company would be willing to jump into Pebble until an acceptable agreement with EPA is finalized, Collier believes Trump’s win creates a sense of urgency.

“In this game of looking at a project that has a question about permitting, the more certain the answer is to that question the more the project costs; so there is an incentive to move perhaps even earlier than a final resolution with EPA,” explained the Pebble CEO.

Once the new Pebble Partnership is in place, Thiessen does not believe it will take long to advance the project into permitting.

The Northern Dynasty CEO would like to submit permit applications this year but said it will depend on the new partner(s) comfort with the proposed mine design.

“I’ve got to convince the major mining companies that are going to be our partners of the merits of what we are doing,” he explained.

If such partners would like to have a third party engineering firm go over the design, it could take a bit longer before permitting is initiated.



continued from page 1

## NORTHERN NEIGHBORS

### Yukon, First Nations sign mining accord

Council of Yukon First Nations Jan. 25 said it has signed a memorandum of understanding with the Yukon government that outlines shared priorities and a work plan to improve the territory's mining sector. "Yukon First Nations recognize that the mining industry is an essential component to Yukon's economy," said Council of Yukon First Nations Grand Chief Peter Johnston. "This MOU will assist in providing certainty for all parties, so we can build economic prosperity for the territory." Signed at the Mineral Exploration Roundup in Vancouver, British Columbia, the agreement establishes a government-to-government relationship that enables the territorial government and First Nations chiefs to identify issues and work together to achieve concrete improvements to resolve matters related to mineral prospecting, exploration, mine development, production, reclamation, closure and post-closure management in Yukon. The First Nations and territorial governments said the renewed collaboration will foster their shared goals for environmental protection, and social and economic prosperity in the Yukon. "The Yukon government is building a relationship with First Nations based on respect and committing to achieve real results," said Yukon Minister of Energy, Mines and Resources Ranj Pillai. "This partnership is good for investment and sets Yukon apart from other jurisdictions in Canada." ●

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## PEBBLE STARS

Thiessen indicated that the mine design that ultimately goes to permitting may be half the size of the 200,000-metric-ton-per-day operation detailed in a preliminary economic assessment published in 2011.

"We may be best served to take a more modest approach," he said.

The Northern Dynasty CEO explained that this measured start to a mine at Pebble would allow the partnership to demonstrate that it will deliver on its environmental, socio-economic and financial promises.

While major mining companies typically would like to see larger throughput at a deposit the size of Pebble, the potential project partners may share Northern Dynasty's views on the merits of easing into a mine that could be an important piece of their portfolio for decades to come.

### Repositioning Pebble

With the door to the permitting process opening and potential partners in the wings, the Pebble Partnership is beginning to look at ways development of the project could be an economic engine and good neighbor to the fisherman and local residents of the Bristol Bay region, a vast expanse of Southwest Alaska about the size of Washington state.

While residents nearest the proposed mine largely support its development, those further away tend to oppose it. This disparity is generally due to the fact that residents living close to Pebble see tangible economic benefits from the development, while those further away see very little to reward to offset a perceived risk to the fishery, an important economic driver for the region.

"For years, commercial fishermen from Bristol Bay, Alaska, and the nation have spoken up saying that they do not want the world's greatest sockeye fishery harmed by Pebble," said Melanie Brown, member of Commercial Fishermen for Bristol Bay.

One of Collier's primary tasks when hired as Pebble CEO in 2014 was to find ways to reposition Pebble so that the people living and working in the region are more comfortable with having a world-class mine as a neighbor.

While the Pebble Partnership wants to talk further with the people in the region before publicizing its finalized plans to

reposition Pebble, Collier and Thiessen shared with Mining News some of the concepts under consideration.

Both CEOs said some type of revenue sharing for residents and Native village corporations in the region is an important step forward.

"The good thing about Pebble is it's on state land; the bad thing about Pebble is it's on state land," Thiessen said.

He explains that other world-class deposits in Alaska, such as the Red Dog zinc mine and Donlin Gold mine project, are on Native lands. This provides the local populations with tangible benefits from the operation.

While Pebble would help to send badly needed money to state coffers and would be an extremely significant economic contributor to the Lake and Peninsula Borough, which covers the area where Pebble is located, the larger Bristol Bay region does not currently have a way to directly draw economic benefits from the rich copper-gold-molybdenum-silver deposit.

Collier said the Pebble Partnership is currently considering a profit sharing program for Bristol Bay residents and Native Village corporations.

Another major economic benefit the mine could provide to Bristol Bay residents and fishermen is low-cost power.

"We are going to make sure the power we bring in is available to all those communities," Collier vowed.

Thiessen believes the power brought into the region for a mine a Pebble could cut the cost of power across the region by as much as 80 percent, a substantial savings for Bristol Bay residents and fish processors.

Contract preference for Native companies in the region, fishery enhancements and forming an advisory council made up of renowned people in the environmental community are among other repositioning ideas the Pebble Partnership is working on.

Collier said he is eager to talk with Alaskans about some of these ideas in the near future. ●

*EDITOR'S NOTE: The 10 Democrats on the Senate Environment and Public Works Committee boycotted a scheduled Feb. 1 vote to confirm Oklahoma Attorney General Scott Pruitt as administrator of the Environmental Protection Agency. With Democrats continuing to hold out on Feb. 2, the 11 Republicans on the committee voted unanimously to suspend rules requiring at least two members of the minority party to be present for a vote to be held and moved the confirmation to the full Senate floor.*

—Shane Lasley, publisher

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