

# **Northern Mining News**

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#### From the Executive Director ...

Some very interesting information this month on diamond production projections from our two historical powerhouses: Ekati and Diavik mines. Reminds us of the innovation at Ekati to find more, and the fact that we need to explore to replace mines like Diavik. Another exciting development is in progress on the old Pine Point mine ground, where new owner Darnley Bay Resources has done some preliminary economics indicating potential for at least a 13 year mine life. What a contribution that could make to the NWT and communities south of the lake!

And in Nunavut, Agnico Eagle continues to bolster their future and the opportunities for Nunavummiut with mine life extension at their Meadowbank mine and a new mine at Meliadine.

Given the significant value of the northern minerals industry, the Chamber has shared its thoughts with the northern Premiers on the serious implications of carbon pricing on their minerals industry if the north isn't treated as being different than the south, which it is.

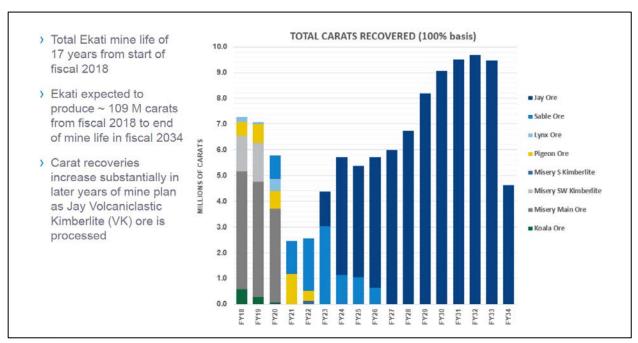
A few notable awards to our members, with Dominion Diamond receiving a national mining award for their environmental work, particularly in composting, and De Beers Canada receiving not just one, but two awards, for communications and for safety.

Happy reading! ... Editor

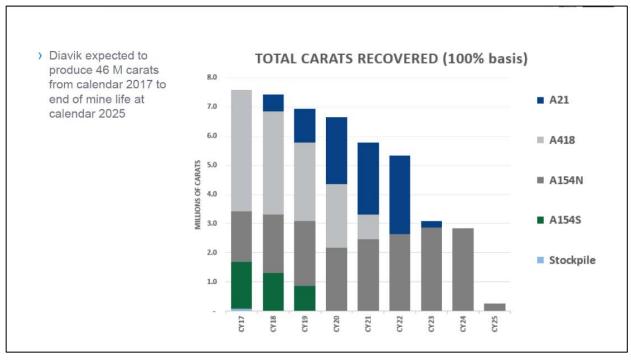
**Our Mission:** To provide leadership on, and advocate for, responsible and sustainable mineral exploration and development in the NWT and Nunavut.

#### **Ekati and Diavik Production Plans**

Dominion Diamond Corporation's latest corporate presentation available <u>here</u> provides some valuable information on future production from both Ekati and the Diavik mines.



Ekati Life of Mine Plan - Increased Carat Recoveries. Source: Dominion Diamond Investor Presentation, April 2017



Diavik Life of Mine Carat Recoveries. Source: Dominion Diamond Investor Presentation, April 2017

#### **Dominion Diamond Q4 Results and Corporate Update**

## Robust project development pipeline, renewed exploration focus and strong balance sheet support long-term value creation strategy

On April 12, Dominion Diamond Corporation reported its fourth quarter and full year financial results for the fiscal year ending January 31, 2017, and also provided an update on multiple projects within its robust development pipeline, and exploration priorities. The Company remains focused on continuing to optimize its existing operations, is well-positioned to advance its portfolio of development projects at both the Ekati Diamond Mine and the Diavik Diamond Mine, and is increasing exploration efforts in the highly prospective Lac de Gras region. Unless otherwise indicated, all financial information below is presented in US dollars.

"We continue to execute on our long-term strategy and create value for all shareholders. With the support of our strong balance sheet, we are well-positioned to advance a number of key development opportunities and begin reinvestment in near-mine exploration at both Ekati and Diavik," said Jim Gowans, Chairman of the Board. "As an established operator, one of our primary objectives is to leverage our infrastructure advantage in one of the world's most prospective diamond mining districts."

#### **Key Corporate Highlights**

- **Guidance for strong sales and Adjusted EBITDA in fiscal 2018:** Financial and operating guidance for fiscal 2018 remains unchanged; sales expected to be between \$875 and \$975 million and Adjusted EBITDA between \$475 and \$560 million.
- Delivering on development projects
  - A-21 project, Diavik mine completion of dike construction and the start of dewatering are on plan for late calendar 2017.
  - Sable project, Ekati mine currently below budget and approximately seven months ahead of schedule, with pre-stripping expected to commence in July 2017.
  - Misery Deep project, Ekati mine pre-feasibility study on track for completion by July 2017.
  - Fox Deep project, Ekati mine indicated resource increased to 45.6 million tonnes and 16.5 million carats; completion of a pre-feasibility study expected late this fiscal year.
  - Jay project, Ekati mine permitting continues to advance, with a decision on the water licence expected in summer 2017.
- **Diavik mine life extension:** Recently-filed technical report demonstrates improved economics and supports an extension in the mine life to 2025 from 2023.
- Growth opportunities through advanced exploration
  - Renewed strategic focus on exploration with a \$9 million exploration budget for fiscal 2018 focused on near-mine exploration and completion of pre-feasibility studies
  - Identification of priority targets with drilling at the Ekati and Diavik properties planned in fiscal 2018.
- Strong balance sheet supports capital allocation strategy

- Maintained strong balance sheet with \$136.2 million total unrestricted cash resources, debt of \$10.6 million and \$210 million available under its revolving credit facility as at January 31, 2017.
- Three-year outlook for strong Adjusted EBITDA enables the Company to advance its suite of development projects with internally-generated cash flows.
- Declared a dividend on April 12, 2017, of \$0.20 per share payable on June 5, 2017, to shareholders of record at the close of business on May 17, 2017.
- Repurchased and retired approximately 3.4 million shares in fiscal 2017 as part of the Company's normal course issuer bid for a total value of C\$40.9 million.
- In total, the company returned \$65.1 million to shareholders in fiscal 2017 through a combination of dividends and share repurchases.

Read the full release here.

### De Beers Rough Diamond Sales for Cycle 3, 2017

On April 4, De Beers Group today announced the value of <u>rough diamond sales</u> (Global Sightholder Sales and Auction Sales) for the third sales cycle of 2017.

	Cycle 3 2017	Cycle 2 2017	Cycle 3 2016
	(provisional)	(actual)	(actual)
Sales value <sup>3</sup> (\$m)	580	553	666

Notes to this table are shown at the bottom of this page.

Bruce Cleaver, CEO, De Beers Group, said: "We saw the continuation of good rough diamond demand in Cycle 3 across the product range. This reflected positive sentiment from our customers following the Hong Kong International Jewellery Show in March."

### **Proposed Carbon Pricing puts NWT and Nunavut Economies at Increased Risk**

The Chamber of Mines has expressed its concerns about potential impacts of carbon pricing in the North if governments take no actions to understand how the North is different. Therefore, the northern minerals industry is supporting northern Premiers in having the Government of Canada address their concerns that a carbon pricing scheme designed without consideration for northern conditions will put territorial economies and the business case for development at risk.

In April, NWT Premier Bob McLeod told the Federal Parliamentary Standing Committee on Finance that, "We are faced with the implementation of a carbon pricing system that will make the exploration and development business case harder to make." This aligns with Nunavut Premier Peter Taptuna's comments in March that, "We've made it pretty clear between the three territories ... at the Quebec City climate change conference that we oppose a carbon tax being imposed" and that measures to lower greenhouse gas emissions put the "very delicate economy" in the territories at risk.

The Chamber of Mines and its members support the Premiers and their governments in their appeals to the Government of Canada to take into account the unique nature of our Northern territories as it develops climate change initiatives. "Carbon pricing is a tax instrument intended

to alter behaviour away from carbon use," says Gary Vivian, President of the Chamber. "However, our remote northern mines do not have viable alternatives to using carbon for energy due to the lack of power and transportation infrastructure. Since our mines can't pass on increased costs to their customers, invoking a carbon tax will simply become an added tax on our industry, and on all northerners too, and decrease investment here."

"We all have to do our part to fight climate change," says Vivian. "The irony is that our mines are already good case studies for innovation in carbon emission technology." Driven by higher costs and the need for competitiveness, northern mines have programs to be energy efficient, conserving energy and power and reducing carbon emissions. Examples include efficient diesel power generation systems and wind turbines.

The Chamber of Mines recommends that governments not invoke a carbon tax:

- on the northern minerals industry, including mines and exploration and development activities;
- on any emissions-intensive, trade-exposed industry; and
- on heating fuel where there are no alternatives.

If Canada were to apply a carbon tax against the advice of the NWT and Nunavut Governments, the Chamber recommends that:

- The NWT and Nunavut Governments implement a carbon tax scheme that is revenue neutral within each sector. A property or other tax credit could be applied equivalent to the carbon tax to ensure the business case for Northern economic development is not affected. Additionally, recognize industry actions to reduce overall emissions with a carbon tax rebate in excess of the carbon tax for each tonne of GHG reduced from zerocarbon energy sources such as hydro, wind, and solar;
- Canada recognize Northern capacity challenges and the additional Aboriginal engagement required for Northern policy development, and gives territorial governments additional time to implement any proposed carbon pricing scheme;
- Mechanisms or incentives be provided for industry to invest in the development of lower emission technologies that are applicable to current operations;
- The NWT and Nunavut Governments urge the Federal government to invest in infrastructure that enables adaptation to climate change and its risks such as shorter ice road seasons and to invest in clean energy technologies.

The minerals industry supports the NWT and Nunavut Premiers, and remains ready and willing to engage with their governments and the federal government to discuss appropriate measures for reducing the carbon footprint in the North in a manner that does not harm communities and the economy.

Reducing greenhouse gas emissions in the North can be successful through infrastructure improvements like all-season roads and a green power grid, complemented with innovation, collaboration and effective funding mechanisms and incentives. Such an approach would help communities lower their carbon footprint and help to sustain and grow the northern minerals industry and the many benefits it provides to governments and communities.

#### The Phoenix Rises: Darnley Bay Announces Robust PEA at Pine Point

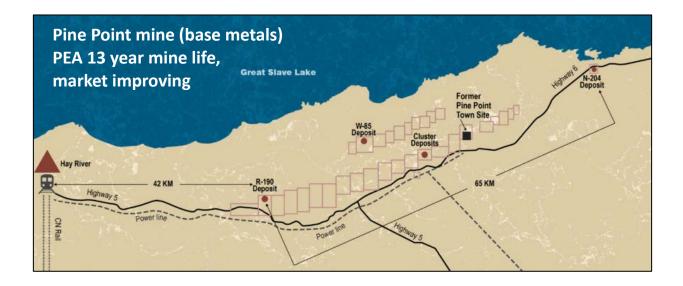
Darnley Bay Resources Limited has announced the results of an independent Preliminary Economic Assessment (PEA) of the 100% owned Pine Point Project located near Hay River, Northwest Territories.

The PEA shows a robust economic return with a relatively low capital cost compared to similar projects and an after-tax payback of only 1.8 years. The PEA was prepared under the direction of JDS Energy & Mining Inc. ("JDS"), an industry-leading, international engineering firm, with extensive experience in planning, construction and operation of mining projects in the Canadian north. The study is being summarized into a Technical Report (the "Darnley Technical Report") to be filed on SEDAR in accordance with National Instrument 43-101 ("NI 43-101") within 45 days. The PEA examined several development scenarios and settled on a mining plan where a number of open pit deposits would be developed using dense media separation plants followed by traditional grinding and flotation to upgrade mineralized material into lead & zinc concentrates, similar to the methods employed by Cominco when the mine was in production in the past. The study confirms that the Project has robust economics at the assumed parameters.

Darnley Bay President and Chief Executive Officer Jamie Levy remarked that, "This Preliminary Economic Assessment supports that management's confidence in this project was well-placed when it was purchased this past December. What is also very encouraging is that there are multiple opportunities, including underground mining, to enhance the economics and extend the project life. The Company plans to initiate a feasibility study in the near future while drilling to add additional resources to the mine plan."

#### PEA Study Highlights - Base Case

- Pre-Tax Net Present Value (NPV) of \$340.8 million at a discount rate of 8%, and Internal Rate of Return (IRR) of 47.8%, with a payback period of 1.4 years;
- After-Tax Net Present Value of \$210.5 million and Internal Rate of Return of 34.5%, with a payback of 1.8 years. Sensitivity analyses are included in Tables 5 and 6;



- Pre-production capital costs of \$153.8 million, including a 15% contingency, with sustaining capex of \$117.5 million over the life of the mine. It is assumed that sustaining capex will be entirely funded out of cash flow;
- The Pine Point project is envisioned as a series of 10 open pit deposits mined in sequence. Total mineral resources included in the PEA mine plan are 25.8 million tonnes of measured and indicated resources grading 2.94% zinc and 1.12% lead, and an additional 3.7 million tonnes of inferred resources grading 2.90% zinc and 0.77% lead.
- A 13-year mine life with total life-of-mine production of 1.35 billion pounds of zinc and 536 million pounds of lead. Total shipments of 1.23 million tonnes (dry) of zinc concentrate grading 58.9% zinc, and 394,000 tonnes (dry) of lead concentrate grading 65% lead. Net of by-products, the average cash cost to produce zinc is US\$0.60 per pound;
- The assessment estimates net smelter return over the life of the mine at \$2,020 million, with gross pre-tax income of \$908 million (Table 8);
- Total on-site operating costs of \$37.64 per tonne processed, and total transport and refining costs of \$23.07 per tonne material mined and processed; and
- A LOM average manpower of 321 persons including staff and contractors at full production.

Read the full release here.

#### Gahcho Kué Mine Production Report for Q1 2017

On April 25, Mountain Province Diamonds Inc. announced the production for the first quarter ended March 31, 2017 from the Gahcho Kué Diamond Mine ("GK Mine").

#### Highlights

- The GK Mine declared commercial production on March 1, 2017 having achieved more than 70 percent of nameplate capacity of 8,333 tonnes per day over the preceding 30-day period.
- Mining of overburden, waste rock and ore in the 5034 open pit for the three months ended March 31, 2017 was approximately 7.7 million tonnes, with approximately 222,600 tonnes of ore (100 percent basis) stockpiled at period end.
- For the three months ended March 31 the GK Mine treated approximately 492,000 tonnes of ore through the process plant and recovered approximately 867,000 carats on a 100% basis for an average grade of approximately 1.76 carats per tonne. The Company's attributable share of first quarter diamond production was approximately 424,830 carats.

Mountain Province President and CEO Patrick Evans commented: "The production ramp-up at Gahcho Kué continued through the first quarter and we're pleased to have declared commercial production on March 1, 2017. The ramp-up since the quarter end has continued smoothly and we expect the mine to achieve full production by mid-2017."

During the quarter the Company completed three pre-commercial production diamond sales. These sales results will be reported with the Company's first quarter financial results on May

11, 2017. Proceeds from pre-commercial production sales are being offset against capital expenditures. The Company expects the first revenues from post-commercial production sales during the second quarter of 2017.

Production sold during the first quarter was sourced primarily from the upper levels of the Northeast Lobe of the 5034 kimberlite, which has a higher population of lower quality diamonds than the average for the whole 5034 kimberlite. As a consequence, realized prices achieved during the first quarter were below the expected average for the 5034 kimberlite as a whole, but are expected to improve as market conditions normalize and more production is sourced from the Center Lobe of the 5034 kimberlite.

Mr. Evans added: "The first quarter diamond sales reflect the experience of a new entrant to the market, as buyers develop familiarity with the sell-through value of the Company's production. The unexpected headwinds from demonetization in India compounded customary weakness during the price discovery period. Importantly, we have seen a steady improvement in our early sales results and are very encouraged that 72 percent of the winning bidders at our March sale were repeat buyers. We expect to work our way through the price discovery period by the middle of the year when we expect realized diamond prices to reflect market conditions."

Based on results achieved to date, the Company today provided the following 2017 production guidance (100 percent basis):

Tonnes mined: 40 million

Tonnes processed: 2.7 million

• Carats recovered: 4.4 million

Grade: 1.62 carats per tonne

In addition, the Company anticipates achieving a realized diamond price for the balance of 2017 of between US\$70 and US\$90 per carat.

### Agnico Eagle Reports Q1 2017 Results; including favourable Results at Amaruq

Agnico Eagle has identified Nunavut as a politically attractive and stable jurisdiction with enormous geological potential. With the Company's largest producing mine (Meadowbank) and two significant development assets (the Meliadine project and the Amaruq satellite deposit at Meadowbank) and other exploration projects, Nunavut has the potential to be a strategic operating platform with the ability to generate strong production and cash flows over several decades.

First Quarter 2017 highlights include:

 Exploration drilling at Amaruq extends and infills Whale Tail Deposit to the west and infills V Zone – Recent drilling indicates the potential to increase the depth of the western part of the Whale Tail pit, and expand the Whale Tail pit farther to the west. An infill drill program in the near-surface portion of the V Zone has confirmed high gold grades in multiple lenses  Meliadine project on schedule and budget – Underground development is 5% above plan and engineering was 67% complete at the end of March 2017. Construction activities are progressing well with the concrete batch plant being commissioned and pile installation restarted in March. Full camp facilities are expected to be completed in May ahead of the barge season

## Amaruq Satellite Deposit – Exploration Drilling Extends and Infills Whale Tail Deposit to the West and Infills V Zone

Studies are ongoing to reduce the potential production gap between the end of the mine life at Meadowbank and the start of operations at Amaruq in 2019.

Agnico Eagle has a 100% interest in the Amaruq satellite deposit which is located approximately 50 kilometres northwest of the Meadowbank mine. Amaruq is situated on a 116,717-hectare property near the 77,411-hectare Meadowbank property. A significant gold discovery was made on the Amaruq property in 2013, and activities since that time have focused on the development of satellite mineralization to feed the existing 11,000 tpd Meadowbank mill.

At December 31, 2016, the Amaruq deposit contained an open pit indicated mineral resource of 2.1 million ounces gold (16.9 million tonnes grading 3.88 grams per tonne ("g/t") gold); an open pit inferred mineral resource of 763,000 ounces gold (4.9 million tonnes grading 4.81 g/t gold); and an underground inferred mineral resource of 1.4 million ounces gold (6.8 million tonnes grading 6.22 g/t gold).

In 2016, the Company completed an internal technical study on Amaruq. Based on this study, the Company has approved the project for development pending the receipt of the required permits.

Agnico Eagle is working closely with the Nunavut Impact Review Board ("NIRB") and the Nunavut Water Board ("NWB") on the Amaruq Phase I (Whale Tail pit) joint permitting process. NIRB/NWB has coordinated the technical review of Amaruq Phase I, which is underway; technical meetings and a prehearing conference will be held in Baker Lake, Nunavut, from April 28, 2017 to May 2, 2017. The final public hearing is expected to take place in September 2017. The Whale Tail pit permitting is on schedule and permits are expected to be received by the third quarter of 2018.

In the internal technical study, a conventional open pit mining operation is contemplated to begin on the Whale Tail satellite deposit (Phase I) in the third quarter of 2019 followed by the V Zone pit (Phase II) in 2020. The Whale Tail and V Zone planned pits extend to depths of approximately 250 metres and 150 metres, respectively, and both pits are open for expansion.

The plan set out in the study contemplates the production of approximately 2.0 million ounces of gold between 2019 and 2024, with pre-mining activities starting in 2018 at the Whale Tail deposit. This represents less than 50 percent of the currently known mineral resource base. Initial capital costs are estimated to be approximately \$330 million. For additional details on the project see the Company's news release dated February 15, 2017.

Approximately \$78 million will be spent on capital costs at Amaruq in 2017, primarily on completion of the all-weather exploration road, additional technical studies and the

procurement of materials and equipment for the 2018 construction season. By the end of the first quarter of 2017, 39 kilometres of the exploration road from Meadowbank to Amaruq had been completed; the 64-kilometre road is expected to be completed as an exploration road by the fourth quarter of 2017. Development of the Amaruq exploration ramp has been permitted and planning is underway, construction of the ramp will begin when the road is completed, allowing for the planned bulk sample collection.

With the development of the Amaruq satellite deposit, the Meadowbank life of mine is expected to extend through 2024. This will allow the exploration team to evaluate the full potential of the Amaruq property.

#### Meliadine Project – Construction Activities Progressing on Schedule and on Budget

Located near Rankin Inlet, Nunavut, Canada, the Meliadine project was acquired in July 2010, and is one of Agnico Eagle's largest gold projects in terms of mineral resources. The Company owns 100% of the 111,757 hectare property.

In February 2017, the Company's Board of Directors approved the construction of the Meliadine project. The mine is expected to begin operation in the third quarter of 2019, and the current mine plan will be focused on the Tiriganiaq and nearby Wesmeg-Normeg mineralized zones that will be accessed from the Tiriganiaq underground infrastructure.

Over an estimated 14-year mine life, approximately 5.3 million ounces of gold are expected to be produced at Meliadine. This represents approximately half of the currently known mineral reserve and mineral resource base.



Agnico Eagle's Meliadine Project is on track to start mining in 2019. Photo: Agnico Eagle Mines

At December 31, 2016, the Meliadine property was estimated to hold proven and probable mineral reserves of 3.4 million ounces (14.5 million tonnes grading 7.32 g/t gold), indicated mineral resources of 3.3 million ounces (20.8 million tonnes grading 4.95 g/t gold) and inferred mineral resources of 3.6 million ounces (14.7 million tonnes grading 7.51 g/t gold). In addition, there are numerous other known gold occurrences along the 80-kilometre-long greenstone belt that require further evaluation.

In the first quarter of 2017, approximately 1,200 metres of underground development was completed, which was 5% above plan. Construction activities are progressing well with the commissioning of the concrete batch plant underway and the resumption of pile installation at the end of March. Full camp facilities are expected to be completed in May ahead of critical barge season. At the end of the first quarter, approximately 67% of the engineering work was completed. The Company expects to complete approximately 80% of the engineering work by the end of August 2017.

Click <u>here</u> to read the full release.

### **Exploration & Development News Briefs (see our website for more information)**

Auryn Resources announced April 20 it has initiated its spring mobilization at the Committee Bay gold project in Nunavut. The large-scale mobilization currently underway is transporting fuel and supplies to the region for the belt-wide summer exploration program, this will include 25,000 meters of drilling expected to start June 3, 2017. The focus of the program will be on making discoveries across the 12 newly identified high priority targets (Figure 1). Drilling will be focused within the Anuri, Four Hills, Three Bluffs, and Inuk corridors. In addition, regional till sampling will be completed on the 15% of the belt yet to be explored to delineate additional targets for 2018.

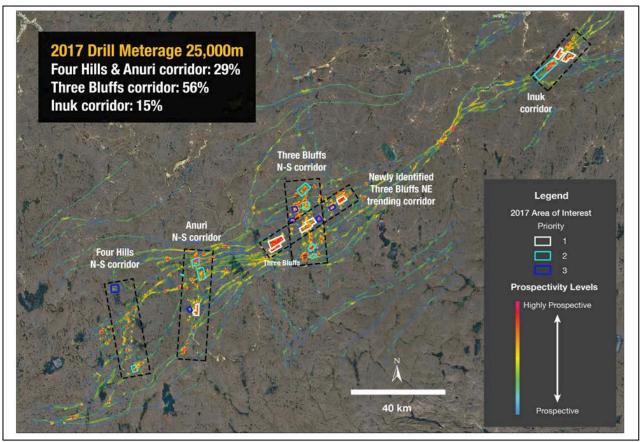
Shawn Wallace, President and CEO stated: "With the recent funding from Goldcorp completed and the technical team's extensive preparative exploration work to date, Auryn is well positioned to undertake an aggressive discovery focused drill program. The commencement of this 25,000 meter program is very exciting for Auryn shareholders as it marks the start of a portfolio wide 55,000 meter discovery program that will continue onto the company's Homestake and Peruvian projects through the end of the year."

In conjunction with the spring mobilization, Auryn is moving the Three Bluffs drill core to a storage facility in Edmonton so that the deposit can be re-logged in Q3 and Q4 of 2017. The purpose of the re-log is to establish the structural controls on high-grade oreshoots within the deposit with the aim of drilling at

Three Bluffs in Q2 of 2018. At Auryn's newly acquired 120 km long Gibsons MacQuoid Gold Project, the company is planning an initial belt wide till survey as well as completing high resolution drone imagery. This exploration program is slated to begin July 15 with the goal of identifying the major centers of gold mineralization within the project area that will be drilled during the summer of 2018.

Michael Henrichsen, Chief Geologist and COO of Auryn stated, "Auryn's innovative approach, with the use of track mounted Rotary Air Blast (RAB) drill rigs and drone survey's has reduced exploration costs significantly and allowed us to actively explore on the project 12 months of the year. The quality and scale of the targets our technical team has developed over the last 8 months has demonstrated the potential of the belt to deliver multiple discoveries."

Dominion Diamond Corporation's exploration this year is expected to be \$11 million, according to their teleconference April 13. The whole Lac de Gras diamond region is underexplored, with Dominion Diamond itself hosting 150 kimberlite pipes on its Ekati mine property worthy of further investigation. As COO Chantal Lavoie explained, "Dominion Diamond's ... very excited about the exploration potential in the Lac de Gras region. We have a large land package there, and although the Ekati and Diavik mines have been operating for over a decade, this is still a relatively new and highly prospective mining district. There's been no exploration at Ekati



Auryn Resources' recently announced 2017 exploration program.

since 2006, and of the known 150 kimberlites on the Ekati property, about 110 have not been extensively tested. Our exploration program for fiscal 2018 includes prioritization of kimberlite pipes and planning for a bulk sampling program in fiscal 2019. We plan to drill up to 6 identified priority targets in the Core and Buffer Zones. At Diavik, drilling of 3 priority targets is planned in 2017. Our exploration budget for this fiscal year is about CAD 11 million. The bulk of it is focused on near mine targets. We believe these present the best opportunities to drive long-term values, as discoveries made near existing operations allow us to leverage our significant infrastructure advantage."

As Dominion's CEO Jim Gowans noted, "With the infrastructure that's already in place at Ekati and Diavik, the cost of developing new projects near Lac de Gras is significantly lower than the cost of greenfield development."

Fortune Minerals retains Hatch and Micon to update NICO Feasibility Study to support project financing. Cobalt demand accelerating in batteries for automotive electrification and stationary storage. On April 25, Fortune announced that Hatch and

Micon have been engaged to update the Feasibility Study for the NICO Cobalt-Gold-Bismuth-Copper Project. Hatch has also been retained to conduct additional engineering work. The vertically integrated NICO Project consists of a planned mine and concentrator in the Northwest Territories and refinery near Saskatoon where concentrates from the mine will be processed to battery grade cobalt sulphate, gold, bismuth metal and oxide, and copper. NICO has already been assessed in a positive Feasibility Study in 2014 but requires an update to reflect current costs, commodity prices and currency exchange rates to support efforts to arrange project financing in progress. The Feasibility Study update is expected to be completed in early summer. Fortune is working with PricewaterhouseCoopers Corporate Finance Inc. ("PwC") to arrange the project financing.

NICO is a primary cobalt deposit with more than 50% of projected revenues at current commodity prices coming from cobalt, now quoted at more than US\$26 per pound for metal cathodes. The cobalt market has transitioned into a supply deficit and demand is accelerating primarily due to consumption in lithium-ion batteries used in

portable electronic devices, electric vehicles ("EV's") and stationary storage cells used to store energy from the electrical grid. The NICO deposit coproducts include more than 1.1 million ounces of gold as well as 12% of global bismuth reserves.

Robin Goad, President and CEO of Fortune, commented, "We are pleased to be working again with both Hatch and Micon as we advance towards arranging project financing for our NICO development and prepare for construction. NICO is positioned to become a unique North American vertically integrated producer of cobalt chemicals for the lithium-ion battery industry with a highly liquid gold co-product."

Glen Koropchuk, Director of Fortune and former COO of De Beers Canada Inc., said, Hatch was the primary Engineering Procurement Construction partner for De Beers' recently commissioned Gahcho Kué diamond mine in the Northwest Territories. With considerable Arctic construction and logistics experience, Hatch is eminently suitable to assist the Fortune team in updating the NICO Feasibility Study and completing detailed engineering to support project financing."

Kennady Diamonds announced April 11 the successful completion of the 2017 winter bulk sampling program. Approximately 555 tonnes of kimberlite have been recovered from the three Faraday kimberlites using two large diameter reverse circulation drill rigs. The bulk samples will be processed at the Geoanalytical Laboratories Diamond Services of the Saskatchewan Research Council. Kennady Diamonds CEO Dr. Rory Moore commented: "We are delighted to have successfully achieved all of the objectives set for the 2017 winter program. We expect that over one thousand carats of diamonds will be recovered from the three samples, which will facilitate advancing the Faraday 2 and 3 kimberlites to an inferred resource and the Faraday 1 kimberlite as a target for further exploration." Drilling on the 2017 winter program got underway on January 19 and was completed on April 10. A total of 75 holes were drilled for a total of 8,030 meters of drilling. DMS Processing of the Faraday #2 bulk sample commenced at the SRC Lab on March 27 and is expected to be completed within the next week. Final diamond recovery from the resulting concentrates should be completed by mid-May. The first truckloads of the Faraday #3 bulk sample have arrived in Saskatoon and processing is scheduled to commence on April 24.

The geophysical program aimed at evaluating exploration targets on new mineral leases recently acquired from GGL Diamonds (see news release, August 18, 2016), is ongoing and is expected to be completed within the next two weeks.

Nighthawk Gold Corp. announced encouraging preliminary results on April 19, from its ongoing metallurgical test work program on the Colomac Gold project. Testing was completed at Bureau Veritas in Richmond, BC, and audited by Starkey & Associates Inc. in Oakville, Ontario. Three drill core bulk samples from various portions of the Colomac gold deposit were assayed and tested for grindability using the SAGDesign methodology. A master composite was then amalgamated from the bulk samples and used for additional metallurgical testing. Initial results indicate that gold recoveries of up to 96.5% may be achieved and the rock is amenable to all standard gold recovery technologies. This represents a significant increase in recovery over the historic production results of 88.1% (1994 to 1997). Additional test work is expected to yield further optimization and confirmation of these results. Highlights include:

- Variation in rock hardness of the three bulk samples was minimal indicating that the material is relatively homogeneous;
- The master composite sample, having a head grade of 1.81 grams per tonne gold measured by fire assay, generated favourable recoveries for all process options, including heap leaching, flotation, and gravity separation;
- Gold extraction by flotation ranged from 94.1% -95.5% with maximum recoveries achieved at a feed size F80of 151 microns;
- Cyanide heap leaching of minus 12,700 micron material reported up to 81.8% gold recoveries, perhaps an option for lower grade material which would otherwise be considered waste;
- Cyanidation of ground rock increased gold recovery significantly up to 96.5%.

"Results from this initial metallurgical testing have significantly exceeded our expectations in comparison to Colomac's known historical recoveries", commented Nighthawk President & CEO, Dr. Michael Byron. "In particular, Colomac material shows excellent grind characteristics, exceptional gold recoveries and responsiveness to all standard gold recovery technologies, comparing favourably to similar projects in North America. It's also important to note that the rock is exceptionally clean as no deleterious materials were detected that

could otherwise adversely affect processing, or impact the environment. We are very pleased with the initial results, and expect the final testwork to confirm these findings". See their latest corporate presentation <a href="https://example.com/here">here</a>.

North Arrow Minerals Inc. announced May 2 that the Company has arranged to complete a nonbrokered private placement of up to 20,000,000 units at a price of C\$0.25 per unit (the "Units") for gross proceeds of C\$5,000,000. Each Unit to be issued in the private placement will consist of one common share in the capital of the Company and one common share purchase warrant (a "Warrant"). Each Warrant will entitle the holder thereof to purchase one additional common share of the Company at a price of C\$0.40 for a period of three years following the closing of the private placement. As part of the private placement, Electrum Strategic Opportunities Fund L.P. and Ross Beaty (collectively, the "Purchasers") have each agreed to make an investment of \$2,000,000, together \$4,000,000, towards the private placement. Upon closing of the private placement, each of the Purchasers will own 19.01% of North Arrow's outstanding shares on a partially diluted basis assuming the exercise of all Warrants acquired by such Purchaser. Ken Armstrong, North Arrow's President & CEO, commented, "North Arrow is very pleased that today's announced private placement will significantly build upon the support of our existing strong shareholder base. These funds will allow North Arrow to complete a summer 2017 drilling and sampling program of the Q1-4 kimberlite at our 100% owned Naujaat Diamond Project, Nunavut. The program is designed to improve our understanding of the size and grade potential of Q1-4 as well as the size distribution and value characteristics of its unique diamond population." Read the full release <u>here</u>.

Sabina Gold & Silver reported April 11 that spring drilling campaign has commenced. Crews have been mobilized and drilling has commenced at the Goose camp on its 100%-owned Back River gold project in Nunavut. Approximately 7,000 metres of drilling has been planned for 2017 in two drill programs, with the first 3,000 metres to be completed this spring, and the balance in a summer drill campaign to commence in August. Priority drill targets have been selected based on their potential to enhance project economics by adding or demonstrating potential additional mine life in the footprint of the proposed Goose Project. These targets include the high-grade

Vault zone at Umwelt underground, significant step out along potential Llama underground, step out drilling at Echo, and follow up drilling of the GNS and Kogoyok targets.

"We have over 50 significant exploration targets identified within our 100% controlled 80km of prospective iron formation stratigraphy," said Bruce McLeod, President and CEO "We believe that there are new discoveries to be made at Back River and this will be a multi-generational project. At this time however, we are focused on adding near term value by potentially extending life at our proposed Goose Mine. We are also very fortunate to have a veteran crew skilled at operating our programs and drilling at these deposits."

Silver Range Announces Private Placement. On March 31, Silver Range Resources Ltd. announced a private placement of up to \$800,000, to consist of the sale of up to 4,000,000 units at a price of \$0.20 per unit, with each unit to consist of one common share and one non-transferable share purchase warrant, with each warrant to entitle the holder to purchase one additional common share at a price of \$0.30 for a period of two years from closing. The py seeking joint venture partners to explore the assets in its portfolio.

On May 2, **TerraX Minerals** announced drill results of 1.90 m @ 13.96 g/t Au and 2.08 m @ 10.90 g/t Au at the Dave's Pond Zone, strike of zone now increased to 400 meters, and assay results from the first 22 holes from the 2017 winter drill program just completed at the Yellowknife City Gold Project ("YCG"). A total of 43 holes comprising 14,689 metres were drilled on multiple targets on both the Northbelt and Southbelt project areas, with assay results pending from the remaining 21 holes, of which 15 holes were drilled at Northbelt (Sam Otto, Banting Lake and Jackson Lake) and six holes were drilled at Southbelt to test the high-grade Con Shear and New Vein targets

Of the 22 holes reported today, six holes (1,774 meters) were drilled at Dave's Pond covering 400 meters of strike to the south and north of TSO16-005, the discovery hole drilled in 2016 (2.40 m @ 9.89 g/t Au – news release January 11, 2017). The remaining 16 holes were drilled on areas to the east, north and south of Mispickel in locations that are covered by the waters of Walsh Lake and require winter drilling.

Joseph Campbell, the CEO of TerraX, stated "The high grade multi-gram gold intersections confirm the continuity of the Dave's Pond structure along strike. This supports our belief that this area hosts classic high grade lode gold targets common to Archean gold systems in Canada. The consistency of the mineralization along strike and at depth leaves this area open for expansion when drilling at Dave's

Pond resumes in July 2017. Dave's Pond will provide a high grade addition to the adjacent bulk tonnage Sam Otto Main Zone target, which is sub-parallel and 300 meters to the west of Dave's Pond." Read the full release <a href="here">here</a>.

#### **Ekati receives MAC Environmental Excellence Award for Waste Management**

The Mining Association of Canada (MAC) has awarded Dominion Diamond Corporation's Ekati Diamond Mine and Vale Newfoundland and Labrador Limited's Voisey's Bay Mine with the 2017 Towards Sustainable Mining® (TSM) Excellence Awards for their innovative sustainability projects. Dominion Diamond and Vale were recognized with the awards on May 1 at the CIM Awards Gala in Montreal.

#### **Dominion Diamond: Transforming Waste Management**

Dominion Diamond Corporation purchased the Ekati Diamond Mine in the Northwest Territories in 2013. Since that time, the company has worked to transform how waste is managed at the site to improve sustainability and limit environmental impacts. Various actions throughout the years have significantly reduced the mine's waste and greenhouse gas (GHG) emissions and have inspired communities and other mining companies in the region to follow Dominion's lead.

In 2013, Dominion started purchasing environmentally-friendly products for the mine, such as corn-oil based garbage bags, sugarcane take-out containers, and compostable disposable utensils to reduce the amount of chlorine-rich plastics in the waste incinerator. The company then restricted incineration to paper and organic waste and launched a two-year educational

campaign for all staff on waste management and segregation. Items such as oily rags, glass, plastics, cans, and other recyclables are removed from the mine site and sent for recycling or proper disposal. These actions have prevented nearly 75,000 kilograms of plastics and 193,000 kilograms of oily rags from being incinerated, reducing emissions from the mine's two incinerators into the environment and keeping them well below federal guidelines.



The composter vessel at the Ekati mine (See Aug 2015 newsletter)

In 2015, Dominion installed an in-vessel composter—the first mine in Canada's North to do so. Now, roughly half of organic waste generated at the Ekati mine is composted. By the end of 2016, more than 67,000 kilograms of organic waste has been diverted, reducing GHG emissions by 210 tonnes CO2 equivalent and diesel consumption by 74,000 litres. Thanks to the in-vessel

composter, Dominion is often able to shut down one or both incinerators entirely, which has decreased scrubber water consumption by an estimated 25%.

More recently, in 2016, Dominion launched a study to evaluate the use of site- generated compost in reclamation work as a means of adding nutrients to the processed kimberlite and to promote vegetation growth. If the study shows positive results, it will create a new opportunity to transform site-generated waste into a powerful tool in reclamation.

"Dominion takes our responsibility to the environment seriously, as demonstrated through our waste management program, and we are honoured to be recognized for those efforts. We are particularly proud of our teams that have worked so hard to transform how waste is managed at the site to reduce emissions, improve sustainability, and keep the environment clean and safe," stated Brendan Bell, Chief Executive Officer, Dominion Diamond Corporation.

"Both Dominion Diamond and Vale have been recognized with TSM Excellence Awards for demonstrating how leading mining companies are integrating sustainability into all aspects of their business, from transforming how they process waste on site to how they ship their products to market. We congratulate both companies for successfully finding new opportunities to protect the environment and preserve the traditional cultures of local Indigenous communities, and for inspiring others to follow their lead," stated Pierre Gratton, President and CEO, MAC. Established in 2014, the TSM Excellence Awards include the TSM Environmental Excellence Award and the TSM Community Engagement Excellence Award.

#### **News 3D Kimberlite Mineral Diamond Data from Slave Geological Province**

The NWT Geological Survey <u>released a study</u> in April that reports new Kimberlite Indicator Mineral (KIM) Chemistry in the Central Slave Geological Province that has potential to benefit future exploration in the region to find the next diamond deposits.

This is the latest geoscience research arising from the Slave Province Surficial Materials and Permafrost Study that was conducted from 2015-2016, designed to inform a variety of mineral exploration, geological and environmental research objectives.

Two earlier studies provide insight into the till samples collected from the same drilling. *NWT Open Report 2016-012* reports till geochemistry from the reverse circulation sampling, and *NWT Open Report 2016-018* reports KIM picking results.

Combined, the three reports provide a valuable new 3D till geochemistry and indicator mineral database for use to advance research and mineral exploration interests. The research for the three studies was carried out by the NTGS and funded by the Canadian Northern Economic Development Agency (CanNor).

The Government of the Northwest Territories (GNWT) values geoscience information as a way to inform decision making and increase public awareness. Enhancing the availability of geoscience information is a key component of the NWT Mineral Development Strategy.

"The Slave Geological Province is one of the most promising mining regions in the world and offers significant economic opportunity. Through this innovative 3D geoscience data, we will gain a more accurate understanding of the mineral and surficial potential of this area and

demonstrate that the Northwest Territories has world-class resource potential and scientific research needed to attract investment," says Said Wally Schumann, Minister of Industry, Tourism and Investment, responsible for the NTGS.

#### Some Quick Facts

- The Slave Geological Province is one of the most promising mining regions in Canada and includes a number of gold, diamond, base metal and rare-earth deposits.
- The latest data includes KIM chemistry from 12,444 picked mineral grains from the Lac
  de Gras Area. The individual mineral grains were chemically characterized to determine
  if they originated from kimberlite the host rock for diamonds.
- Surficial sediment sampling via reverse circulation drilling was used to generate the new regional 3D indicator mineral and till geochemistry database for the study area.

This study is available as <a href="NWT Open Report 2017-011">NWT Open Report 2017-011</a> from the NTGS website.



Northspan Hornet Reverse Circulation (RC) drill. Credit: Aurora Geoscience

## A new Shared Arctic Leadership Model – Mary Simon submits report

The report of Mary Simon, the Special Representative to the Minister of Indigenous and Northern Affairs Canada, was made public at press time. You can read its contents here: https://www.aadnc-aandc.gc.ca/eng/1492708558500/1492709024236

While we haven't digested it, a quick glance provides some very interesting observations from the well-known northern champion, Ms. Simon, including:

#### Recommendations on Closing the infrastructure gap:

It is recommended that the Government of Canada:

With Arctic governments and Indigenous leaders, develop criteria for Arctic
infrastructure projects that reflect the singularly unique context for infrastructure
spending, the 'catching up' nature of the infrastructure gap in the Arctic, and that
corrects for the punitive nature of per capita allocations without base funding

#### Recommendations on Reducing fossil fuel dependency

It is recommended that the Government of Canada:

- Ensure that the Indigenous and Northern Affairs Canada-led process announced in December 2016 involve Arctic governments and Indigenous organizations
- Establish a business development fund for Indigenous-led renewable energy and efficiency projects
- Expand and collaborate with the Yukon College and the new Industrial Research Chair for Colleges in Northern Energy Innovation. This NSERC-funded position is further supported by Yukon Energy, ATCO Electric, the NWT Power Corporation and Qulliq Energy. The research will focus on the integration of renewable energy in isolated community grids, energy storage, diesel efficiencies, independent energy valuation, residential and utility partnership, and demand-side management

## Recommendations on Conservation: Immediate steps towards meeting existing conservation targets

It is recommended that the Government of Canada:

- Expedite the process of completing Tallurutiup TariungaFootnote4 (Lancaster Sound) as a National Marine Conservation Area using the expanded boundary set out by the Qikiqtani Inuit Association
- Expedite the process of completing Thaidene Nene as a National Park
- Accept the Pikialasorsuaq Commission's recommendation for the creation of an Inuit-led management plan and monitoring process for the entire North Water Polynya and consider recognizing the region as an Indigenous Protected Area
- Develop a "whole of government" approach to terrestrial and marine park-related impact benefit agreements that meets or exceeds best global standards

## Recommendations on Conservation: Indigenous protected areas: Toward a new, ambitious Arctic conservation goal

It is recommended that the Government of Canada:

- Work to formally recognize existing land and marine conservation planning designations as the basis for setting and realizing a new, ambitious conservation goal
- Continue progress toward becoming the first country in the world to have a legal mechanism to recognize Indigenous protected areas

- Work with Arctic governments and Indigenous organizations to conceive a new federal policy directive that sets out a process for the identification, funding and management of Indigenous protected areas
- Identify long-term stable funding to support locally-driven terrestrial guardians and Arctic coastal and marine stewardship programs
- Make a request to the International Union on the Conservation of Nature (IUCN) to formally recognize Indigenous protected areas as a valid conservation designation under the "other acceptable conservation measure" category

#### Recommendations on Developing a new Arctic Policy Framework

It is recommended that the Government of Canada:

- Convene a summit of northern Premiers and Indigenous leaders with the Prime Minister and key Ministers to discuss a process for developing a new Arctic Policy Framework
- Develop, with Arctic leaders, principles of partnership for policy processes
- Commit to greater action to address the serious challenges of mental wellness
- Review funding formulas for transfer payments to provinces and territories and make the structural changes necessary to ensure that resources are directed towards maximizing impactful results and policy innovation to Arctic citizens and communities

Read Ms. Simon's full report here.

#### **NEW! Diavik Sustainable Development Report**

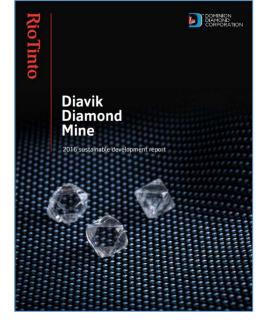
Diavik Diamond Mines is committed to ensuring local communities benefit from the sustainable development of its mine. Commitments are formalized through individual participation agreements with the Tlicho Government, the Yellowknives Dene First Nation, the North Slave Metis Alliance, the Kitikmeot Inuit Association, and the Lutsel K'e Dene First Nation.

Diavik also has a socio-economic monitoring agreement with the Government of the Northwest Territories, which was signed by Indigenous partners.

Regulatory requirements and an environmental agreement between Diavik, Indigenous partners, and federal and territorial governments formalize Diavik's environmental protection commitment. The Environmental Monitoring Advisory Board, created under the environmental agreement and the socio-economic monitoring agreement, allow communities and governments to monitor Diavik's environmental commitments.

Socio-economic highlights from 2016 include:

- 1,187 jobs of which 557 are northern and 233 of these Indigenous;
- \$261.6 million in northern spending of which \$123.7 million was with northern Indigenous businesses;



- Since 2000, Diavik has spent \$5.2 billion with northern businesses, or 72 per cent of the total business spend of \$7.2 billion. Of the \$5.2 billion in northern spend, \$2.6 billion has been spent with northern Indigenous businesses and their joint ventures;
- At year end, Diavik supported 31 apprentices, with 21 being northerners; of the 21 northerners, 11 are northern and Indigenous;
- Donations and sponsorships total \$123,600 to a variety of organizations;
- Scholarships, Participation agreement administered and Diavik administered, totalled \$202,322.

The report also provides information on health, safety and environmental performance, including the performance of its 4 wind turbines. Download the complete report <a href="here">here</a>.

#### Another successful Diamond Ice Road year

The famous and crucially important Tibbitt to Contwoyto Ice Road closed to northbound traffic on March 29, 2017. The total number of billable loads this year was 9,380. That included head and back hauls. Total tonnage was 279,483 metric tonnes. This compares to approximately 9,600 loads hauled last year. The ice road joint venture expects similar numbers next year. Breakdown by clients was:

Mine	Loads	Tonnes
Diavik	3,507	114,778
Dominion	2,814	84,935
Gahcho Kué	2,136	61,590
Snap Lake ( mostly backhauls)	627	12,608
3 <sup>rd</sup> Party	296	5,572
Total	9,380	279,483

Thanks to all of the ice road builders for their continuing strong efforts at keeping this critically important lifeline open.



The Tibbitt to Contwoyto winter road is a lifeline for all three diamond mines. (Credit: Diavik Diamond Mines Inc.)

#### **Energy Efficiency at Ekati**

Dominion Diamond's energy efficiency initiatives at the Ekati mine were featured in a recent Canadian Industry Program for Energy Conservation (CIPEC) <u>newsletter</u> produced by Natural Resources Canada. The story reads:

"Dominion Diamond recognizes the impact that climate change is having on the northern landscape. We are focused on taking steps to reduce greenhouse gas (GHG) emissions and improve energy efficiency," says Brendan Bell, CEO of Dominion Diamond Corporation.

Dominion Diamond owns and operates the Ekati mine, and owns 40 percent of the Diavik mine, both located in the Northwest Territories, 300 kilometres northeast of Yellowknife. A CIPEC Leader in the mining sector, the mine officially began production in October 1998. It employs over 1,090 full-time staff with additional contractors for a total of 1,820 personnel. The Ekati mine operates 24 hours a day (generally in 12-hour shifts), 365 days per year.

The company has undertaken numerous energy efficiency initiatives at the Ekati mine. For

example, ventilation air fan speed has been reduced in the winter months to adjust to the level of underground mining activity, saving the company approximately three quarters of a million litres of diesel fuel annually.

The company developed a formal energy management system (EnMS) that includes a steering committee and energy use tracking and reporting. This EnMS is instrumental in implementing a new energy management information system (EMIS) at the Ekati mine, the company's top priority for 2017, which will allow the mine to track energy consumption and identify areas for improvement.

A recent employee awareness campaign helped to spread the word that simple behavioural changes can dramatically reduce energy consumption and environmental impact. The campaign generated numerous employee suggestions, including a high-impact idea to install timer switches in all main camp bathrooms, which was subsequently implemented.

Ekati mine employee poster

Lighting in the main camp and office buildings has been retrofitted with LED lights. Approximately 4,000 fluorescent lighting tubes were replaced to decrease diesel fuel consumption by 166,000 litres per year and reduce maintenance costs.

Waste-heat from powerhouse diesel generators is recovered to preheat the glycol flowing through the main boilers that provide heat to all the facilities. This has reduced the usage of diesel in the main camp boilers.

Dominion Diamond has also improved efficiency and reduced emissions significantly by introducing fuel-efficient road trains, a combination of a road haulage tractor and a powered trailer, for ore haulage.

Bell notes that Dominion Diamond was the first northern mine to start composting a significant portion of its waste when an industrial composting unit was brought online in 2015. This single initiative could reduce diesel consumption at the mine by 250,000 litres every year and prevent up to 680 tonnes of GHG emissions from entering the atmosphere.

The company is looking at even more projects, including reductions in boiler heat demand, an idle vehicle management program, compressed air optimization, water conservation, and the replacement of underground truck shop lights with a LED system. The company is also investigating wind energy, solar panels, wood pellets, and other forms of alternative energy.

"We are looking forward to learning from the success stories of energy initiatives undertaken elsewhere in Canada," says Bell. "Being part of CIPEC will enable Dominion Diamond to gain support for energy efficiency assessment studies and access to energy conservation tools".

#### **Congratulations De Beers Canada!**

Congratulations De Beers Canada for not just one, but two awards: communications and safety.

#### Communications Team of the Year

The Calgary-based De Beers Canada External & Corporate Affairs (ECA) team has been named *Communications Team of the Year* in the 2017 North American Excellence Awards, which honour outstanding achievements of communications professionals.

The small three-person team is being recognized for the leading role the team played to support the wide-scale transformation of De Beers Canada in 2016, including:

- Complete business restructuring from coast to coast to coast
- Relocating the company's corporate presence from Toronto to Calgary to open a new Canadian Operational Support Centre
- Opening the world's largest new diamond mine with an event that included more than 200 guests and media from around the world

De Beers' entry documented the extensive work undertaken by the team in more than 25 internal and external communications projects covering all parts of the diamond pipeline from mining to retail, all while the team itself was relocating from across the country to the new Calgary Operational Support Centre, which the team also helped with the final design then opened with an incredible display of Canadian diamonds and jewellery worth close to \$2 million.

#### Two National Safety Awards

De Beers Canada was named a double-winner at the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) annual convention awards gala on Monday, May 1, taking home two prestigious national safety awards.

De Beers Victor Mine received its second consecutive national John T. Ryan Award in the Select Mines category as the safest mine in Canada for having the lowest accident frequency rate during 2016. Gahcho Kué Mine received the 2017 Hatch-CIM Mining & Metals Project

Development Safety Award, in recognition of its outstanding safety systems, culture and performance during the project phase.

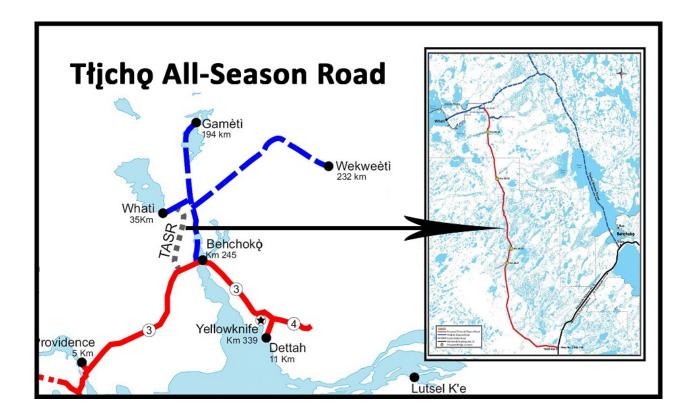
"To have our teams recognized at this level for their demonstrated commitment to Zero Harm is an outstanding achievement that reflects the collective contributions of all employees across De Beers Canada," said Kim Truter, Chief Executive Officer of De Beers Canada. "I want to congratulate all employees at Victor and Gahcho Kué for their outstanding safety performance and for helping establish De Beers Canada as a global mining safety leader."

#### Map: Tlicho All-Season Road

For those interested, here is an <u>updated map</u> of the Tlicho all-season road from Highway 3 to the community of Whatì, posted by the NWT Department of Infrastructure.

The Government of the Northwest Territories is committed to working with the Tłįcho Government to support strong, prosperous communities. Replacing the existing winter road to Whatì with an all-season road comes with significant benefits to residents of the Tłįcho region.

All-season roads are critical to adapting the NWT transportation system to the impacts of climate change, helping support more resilient and reliable infrastructure. By replacing the southern section of the existing winter road serving the region, the Tłįcho All-season Road will not only provide year-round access to Whatì but will also increase the window of access to the communities of Gamètì and Wekweètì. The all-season road will also provide access to new areas of undeveloped mineral resources, opening the door for industry to unlock the region's full economic potential to the benefit of all Northerners and Canadians.



#### **Welcome New Members!**

On behalf of our members, we would like to welcome the following new member to the Chamber of Mines. We encourage your support of their business. Please join us in a warm welcome to:

Darnley Bay Resources Limited, developing zinc in Western Canada. Its Pine Point lead-zinc project covers more than 20,000 hectares near the town of Hay River, NWT.
 Darnley Bay has initiated a Preliminary Economic Assessment on the project as a first step towards bringing Pine Point back into production. Learn more at <a href="https://www.darnleybay.com/">www.darnleybay.com/</a>.

#### Member News Releases this past month

Click on the news release headlines which are live links for news releases issued by our member companies this past month.

- 2 May 2017, Two National Safety Awards for De Beers Canada
- 2 May 2017, Prairie Creek Mine All Season Road Environmental Assessment Public Hearings Completed: Environmental Assessment Moves to Decision Phase
- 2 May 2017, North Arrow Announces Non-Brokered C\$5M Private Placement Financing
- 2 May 2017, TerraX drills 1.90 m @ 13.96 g/t Au and 2.08 m @ 10.90 g/t Au at the Dave's Pond Zone, strike of zone now increased to 400 meters
- 1 May 2017, Dominion Diamond Announces Date of Annual and Special Meeting of Shareholders
- 28 April 2017, Agnico Eagle Announces Election of Directors
- 27 April 2017, Agnico Eagle Reports First Quarter 2017 Results (including Exploration Drilling Yields Favourable Results at Amaruq)
- 25 April 2017, Mountain Province Diamonds Production Report for the First Quarter ended March 31, 2017
- 25 April 2017, Stornoway Announces AGM And First Quarter Earnings Release Date, And Management Appointment
- 25 April 2017, Fortune Minerals retains Hatch and Micon to update NICO Feasibility Study to support project financing
- 25 April 2017, Avalon to Pursue Staged Development Approach for the Separation Rapids Lithium Project, Kenora, ON
- 20 April 2017, Auryn Resources commences spring mobilization at the Committee Bay Gold Project and provides Arctic exploration update
- 19 April 2017, Canadian Zinc Drilling Extends Mineralization at Lemarchant, Newfoundland
- 19 April 2017, Seabridge Gold Announces Closing of \$15.7 Million Bought Deal Public Offering of Common Shares
- 19 April 2017, Nighthawk Reports Preliminary Metallurgical Results of up to 96.5% Gold Recoveries at Colomac
- 18 April 2017, Darnley Bay Announces Robust Preliminary Economic Assessment at Pine Point
- 18 April 2017, De Beers Alberta Flights Moving to Calgary International Airport
- 12 April 2017, Dominion Diamond Reports Fiscal 2017 Fourth Quarter Results and Provides Corporate Update
- 11 April 2017, Sabina Gold & Silver Reports Spring Drilling Campaign Has Commenced
- 11 April 2017, Kennady Completes Winter Bulk Sampling Program on the Faraday Kimberlites
- 7 April 2017, Avalon Appoints Ms. Patricia Mohr to its Board of Directors
- 5 April 2017, De Beers Rough Diamond Sales for Cycle 3, 2017

#### **Calendar of Events**

- Resources for Future Generations (RFG2018), June 16-21, 2018, Vancouver Convention Centre, BC. With themes covering all of the key geoscience sectors across all of professional practice – Minerals, Energy, Water and the Earth. Organizers are Calling for Sessions and you can submit your session proposal at: <a href="www.RFG2018.org">www.RFG2018.org</a>. Abstracts will be sought in June 2017.
- Canadian Aboriginal Minerals Association 25<sup>th</sup> Anniversary Conference: "Water For Life, Mining For Need, Achieving Balance". November 12-14, 2017, Toronto, ON. For more information and to register, visit <a href="here">here</a>.
- **45**<sup>th</sup> **Annual Yellowknife Geoscience Forum,** the North's largest combined tradeshow and conference, will be held November 14 16, 2017 in Yellowknife, NT. Watch for updates at the website <a href="here">here</a>.



"Colomac bunkhouse" adds a little smile to tough exploration work at Indin Lake gold project. Photo: Nighthawk Gold

## **Mines & Promising Northwest Territories Mine Projects**

The following table describes a number of leading mineral development projects in the NWT.

Project Name	Owner(s)	Commodity	Description	Status
Ekati Mine	Dominion	Diamonds	Canada's first and largest diamond	News Release, April 12, 2017:
	Diamond		mine, 310 km. NE of Yellowknife.	Dominion Diamond Reports Fiscal 2017
	Corporation, and		Open pit and underground. Mine life	Fourth Quarter Results and Provides
	Dr. Stewart		to 2020. Workforce in 2015	Corporate Update
	Blusson.		approximately 1,800.	Robust project development pipeline,
			The Ekati mine consists of two joint	renewed exploration focus and strong
			ventures, the Core Zone Joint Venture	balance sheet support long-term value
			and the Buffer Zone Joint Venture, in	creation strategy
			which the Company has an interest of	News Release, May 1, 2017: Dominion
			88.9% and 72.0%, respectively. All of	Diamond Announces Date of Annual and
			the production in fiscal year 2017 was	Special Meeting of Shareholders
			sourced from the Core Zone.	<ul> <li>Provides Update on Strategic</li> </ul>
				Alternatives Review and CEO Search
Ekati Jay Project	<u>Dominion</u>	Diamonds	The Ekati Jay project is in	
	<u>Diamond</u>		Environmental Assessment. Ekati	
	Corporation, and		mine life currently ends in 2020, but if	
	Archon Minerals		mining of the Jay pipe is approved,	
	Ltd.		mining could be extended 10 yrs.	
<u>Diavik Mine</u>	Rio Tinto &	Diamonds	Canada's largest producer of	News Release, March 31, 2017: Dominion
	<u>Dominion</u>		diamonds, 300 km NE of Yellowknife.	Diamond Files Updated Technical Report for
	<u>Diamonds</u>		Mine life through 2023. Became all	the Diavik Diamond Mine
			underground mine in 2012.	
			Workforce approximately 1,000.	
			Work to develop new A21 open pit	
			has begun and will cost US\$350m	
			over 4 years. A-21 is on track to	
			commence ore production in the	
			second half of 2018. The A-21	
			workforce will peak at approximately	
			200 people.	
			Proven and probable reserves at Dec	
			31, 2016 were 16.3 million tonnes at	
			2.8 carats/tonne for total of 46.0	
			million carats.	
<u>Gahcho Kué</u> Mine	De Beers &	Diamonds	Located approximately 280 km NE of	Mtn Province News release, April 25, 2017:
	<u>Mountain</u>		Yellowknife, NWT. Mine life 12 years.	Mountain Province Diamonds Production
	<u>Province</u>		First production ahead of schedule in	Report for the First Quarter ended March 31,
			Q2 2016. Mine is ramping up	2017
			production and reached commercial	De Beers News Release, April 18, 2017: De
			operation in the first quarter of 2017.	Beers Alberta Flights Moving to Calgary
			Comprised of three open pits, the	International Airport
			mine employs approximately 530	'
			people full-time, with the majority	
			working a two-week in/two-week out	
Prairie Creek	Canadian Zinc	Zinc-lead-	rotation.  Proposed underground mine 120 km	News Release, May 2, 2017: Prairie Creek
Traine Creek	Corporation	silver	W of Ft. Simpson. Estimated mine	Mine All Season Road Environmental
	Corporation	Silvei	jobs: 220	Assessment Public Hearings Completed:
			All permits now in place to construct	Environmental Assessment Moves to Decision
			and operate the mine. Preliminary	Phase
			Feasibility Study completed in early	i nasc
			2016 supports longer, 17-year mine	
			life.	
			The company's proposal to construct	
			a new airstrip and all-weather road is	
			undergoing environmental	
			assessment.	
NICO	Fortune Minerals	Cobalt-	Proposed open pit and underground	News Release, April 25, 2017: Fortune
11100	Ltd.	gold-	mine located 50 km NE of Wha Ti.	Minerals retains Hatch and Micon to update
	Liu.	guiu-	mine located 30 km NL OF Willa H.	winiciais retains riaton and wilcon to update

## NWT & Nunavut Chamber of Mines – Northern Mining News

	I	hismuth	Estimated mine jobs: 150 Peguires	NICO Egasibility Study to support project
		bismuth- copper	Estimated mine jobs: 150. Requires access to highway to Wha Ti, still to be constructed.	NICO Feasibility Study to support project financing     Cobalt demand accelerating in batteries for automotive electrification and stationary storage
Kennady North	Kennady Diamonds Inc.	Diamonds	Kennady Diamonds controls 100% of Kennady North project comprising 13 leases and claims immediately to north and west of 4 leases controlled by the Gahcho Kué Joint Venture (see above). Kennady Diamonds aims to identify a resource along the Kelvin – Faraday kimberlite corridor of between a 12 and 15 million tonnes at a grade of between 2 and 2.5 carats per tonne and also to identify new kimberlites outside of the corridor. The Kelvin – Faraday corridor is a target for further exploration. The tonnage estimate is based on the drilling completed to date. The potential quantity is conceptual in nature as there has been insufficient drilling to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.	News Release, April 11: Kennady Completes Winter Bulk Sampling Program on the Faraday Kimberlites  Program total of 555 tonnes of kimberlite recovered  267 tonnes from Faraday #2; 262 tonnes from Faraday #3 and 25 tonnes from Faraday #1
<u>Nechalacho</u>	Avalon Advanced Materials Inc.	Rare earth metals	Proposed underground mine 100km SE of Yellowknife. Estimated mine jobs: 200. The Company remains optimistic that rare earth demand will recover sufficiently in 2015 to attract Project financing and allow construction work to begin by summer 2015.	News Release, April 7, 2017: Avalon Appoints Ms. Patricia Mohr to its Board of Directors
<u>Indin Lake</u>	Nighthawk Gold	Gold	Nighthawk controls over 90% of the prospective Indin Lake Greenstone Belt in this historic gold camp with a total ground position now comprising 930 sqkm, approximately 220 km north of Yellowknife, NT. The Indin Lake Greenstone Belt is one of Canada's most underexplored gold camps. The property contains 14 known gold deposits and showings, 3 are historic mine (eg. Colomac)	News Release April 19, 2017: Nighthawk Reports Preliminary Metallurgical Results of up to 96.5% Gold Recoveries at Colomac
Pine Point	Darnley Bay Resources	Lead-zinc	Proposed underground mine and open pit mine east of Hay River, NT. Darnley Bay Resources acquired the project in 2017, and has begun active exploration to advance the project.	News Release, April 19, 2017: Darnley Bay Announces Robust Preliminary Economic Assessment at Pine Point
Courageous Lake	Seabridge Resources	Gold	Proposed open pit mine 240 km NE of Yellowknife. 6.5 M oz proven and probable reserves. (Positive PFS July 2012). The FAT deposit is one of Canada's largest undeveloped gold projects. Gold resources of 8.0 million ounces in the measured and indicated categories plus an additional 3.4 million ounces in the inferred category.	News Release, 29th March 29, 2017: Seabridge Gold Files 2016 Year End Audited Financial Statements and MD&A  Seabridge is currently focusing its work on their KSM mine development in British Columbia.

Selwyn	Selwyn Chihong	Zinc, lead	Proposed base metal mine in Yukon	Selwyn Chihong Mining's proposed upgrade
Selwyn (Howards's Pass Project)	Selwyn Chinong Mining Ltd.	zinc, iead	on NWT border and access is through NWT. Agreements signed with NWT (Sahtu) Aboriginal land corporations. The project will process multiple open pit mines over an approximate 10+ year mine life and includes a mineral processing plant, tailing management facility and the required on-site infrastructure. The mine is being designed to process 38,500 tonnes per day (tpd) of ore which, after processing, is expected to result in 2,500 tpd of zinc and 600 tpd of lead concentrate, which would be trucked to the Port of Stewart for export. Selwyn Chihong estimates the proposed mine will create approximately 1500 jobs during construction and approximately 750 during operation.	of a road to its lead-zinc mining project in Yukon's Selwyn Mountains will undergo an environmental assessment. Parks Canada has referred the 79km Howard's Pass Access Road (HPAR) to Environmental Assessment under the MVEIRB, which accepted the referral in July 2015.  The HPAR was developed in the 1970s, and runs from the Nahanni Range Road to the NWT-Yukon border. Passing through 2 national parks.  Yukon media reported in Feb 2016 that Selwyn Chihong has decided to slow their project down due to the current low zinc prices, and will not to take the project to the permitting stage this year. According to External Affairs VP Maurice Albert, SC has opted for a traditional drilling program and hopefully add another 10 years to the mine life.
Snap Lake Mine (Suspended, on care & maintenance)	De Beers	Diamonds	Canada's first all underground diamond mine. 220 kilometres NE of Yellowknife. Mine life to 2028. Workforce approximately 750. Due to low diamond prices, De Beers put the Snap Lake mine on care and maintenance in December 2015.	News Release, December 16, 2016: Extended Care and Maintenance to Proceed at Snap Lake Mine
Cantung Mine (Closed, on care & maintenance)	North American Tungsten	Tungsten, copper	Cantung is in the mountains of western NWT, ~300 km by road NE of Watson Lake, Yukon.  North American Tungsten (NATC) filed for Court protection under the CCAA on June 9, 2015.  In accordance with the Operating Plan, the mill at the Cantung mine site was shut down on October 26, 2015, and transition of the Cantung mine to care and maintenance is expected to be completed on or about November 18, 2015.	Nov 19 GNWT News Release: NWT Government purchases Mactung assets of Cantung.





Diamond from Kennady Diamonds bulk sampling program. Source: <u>Kennady Diamonds</u>.

## **Mines & Promising Nunavut Mine Projects**

The following table describes a number of leading mineral development projects in Nunavut.

Project	Owner(s)	Commodity	Description	Status
Meadowbank Gold Mine	Agnico Eagle Mines	Gold	In operation since 2010. Open pit mine located in the Kivalliq Region, 300 km west of Hudson Bay and 70 km N of Baker Lake.  Mine jobs: 775  AEM announced they will develop Amaruq satellite deposit, 50km from mine site and add 6 years to mine life, beginning in 2019. Construction of the Amaruq Exploration Access Road commenced in the first quarter of 2016. Road construction is ongoing with nine kilometres completed to date of the expected total length of 64 kilometres.	News Release, April 27, 2017: Agnico Eagle Reports Q1 2017 Results; including favourable Drilling Results at Amaruq News Release, April 28, 2017: Agnico Eagle Announces Election of Directors
Mary River Iron Mine	Baffinland Iron Mines	Iron	In operation since September 2014; Open pit mine located 936 km N of Iqaluit. Mine jobs: 602 Production from Early Revenue Phase (ERP) began September 8, 2014. Company has proposed a Phase 2 project with increased production and shipping. AANDC Minister has approved application for exemption from NPC negative conformity determination, July 14, 2015.	Project is undergoing a new Environmental Assessment for the proposed expansion of mining and shipping to help offset downwards spiraling iron ore prices. Baffinland expect to submit the EIS (Environmental Impact Statement) for Phase 2 of the Project in September 2016. This submission is delayed from April 2016, to allow Baffinland to present a rail alternative with the road transport proposal and provide and assess the most effective means of transporting ore from Milne Port along the northern shipping route. The Qikiqtani Inuit Association (QIA) initiated arbitration proceedings with Baffinland Iron Mines Corporation (BIMC) on July 20, pursuant to the dispute resolution provisions of the Inuit Impact and Benefit Agreement alleging that Advance Payments of royalties owed to QIA are in arrears by \$6.25 million plus interest.
Hope Bay (Mine nearing commercial production)	TMAC Resources	Gold	Proposed gold mine 130 km S of Cambridge Bay; covers the majority of the Hope Bay Greenstone Belt. Estimated mine jobs: 485 Mine nearing commercial production in February 2017.	News Release, February 9, 2017: TMAC Resources Pours First Gold at Hope Bay News Release, February 23, 2017: TMAC Nearing Commercial Production at Hope Bay
<u>Meliadine</u>	Agnico Eagle Mines	Gold	Proposed open pit and underground gold mine, 25 km NE of Rankin Inlet. Estimated construction jobs: 1,000 Estimated mine jobs: 700 IIBA signed June 2015. Initial capital cost is estimated to be \$911m; initial production life of 9 years. On February 15, 2017: Agnico Eagle announced that Meliadine and Amaruq projects approved for development with production beginning in 2019.	News Release February 15, 2017: Agnico Eagle announced that Meliadine and Amaruq projects approved for development.
Back River	Sabina Gold & Silver Corp.	Gold	Approximately 60KM from Hackett River; adjacent to the Wishbone Greenstone belt. Consists of the George and Goose Lake deposits and holds significant gold resources.	News Release, April 11, 2017: Sabina Gold & Silver Reports Spring Drilling Campaign Has Commenced

			Estimated construction jobs: 1,600	
			Estimated mine jobs: 900 Sabina's Feasibility Study on its 100% owned Back River Gold Project presents a project that has been designed on a fit-for purpose basis, with the potential to produce ~200,000 ounces a year for ~11 years with a rapid payback of 2.9 years (at a U\$\$1,150 gold price and a 0.80 exchange rate). Initial CAPEX of \$415 million.	
Kiggavik	AREVA Resources	Uranium	Proposed uranium mine 80 km W of Baker Lake. Estimated Construction jobs: 750 Estimated mine jobs: 600	July 25, 2016, Federal Minister of Indigenous and Northern Affairs Canada, on behalf of the Ministers of Fisheries, Oceans and the Canadian Coast Guard, Natural Resources, Transport as responsible ministers for this project with jurisdictional responsibility for authorizing whether the Kiggavik Project should or should not proceed, accept the Board's determination that the Project should not proceed at this time.
Izok Corridor Project (with High Lake & Hood River deposits)	MMG Resources	Copper, Zinc, Gold, Silver	High Lake is 1,710 hectare, copper- zinc-silver-gold property, 190 km ESE of Kugluktuk.Izok is high-grade zinc- copper-lead-silver deposit, 255 km SW of Kugluktuk. Estimated construction jobs: 1,140 Estimated mine jobs: 710	MMG examining alternative designs to reduce costs, add value, and improve economic viability of the project. Company stated publicly that project needs infrastructure assistance to become a mine. News Release, September 27, 2016: MMG plans CEO succession
Chidliak	Peregrine Diamonds Ltd.	Diamonds	Located 120 kilometres NE of Iqaluit, the capital of Nunavut, and 180 km S of Pangnirtung. 74 kimberlites discovered to date with 8 potentially economic. Positive Phase One Preliminary Economic Assessment in July 2016 highlights:  • After-tax payback period of 2 years,  • LOM of 10 years.  • Commercial production 2021 with 3-year construction schedule.  • LOM average production rate of 1.2 million carats per annum, peaking at 1.8 million carats per year.  • LOM average head grade 1.67 ct/T  • Estimated pre-production capital requirement of approximately C\$434.9 million, includes construction of 160 kilometre, all-weather road to connect to Iqaluit, the capital of Nunavut.  • 2,000 tonnes per day.  • LOM Opex of C\$94.4/tonne of C\$57.7/carat.	News Release, March 6, 2017: Peregrine Diamonds Completes Internal CH-6 Open Pit and Underground Mining Study and Revises 2017 Work Program News Release, March 30, 2017: Peregrine Diamonds Announces Results of Voting For Election of Directors
Angilak	Kivalliq Energy Corp.	Uranium	340,268 acre property located SW of Baker Lake; Hosts the high-grade Lac 50 Trend deposit	News Release, January 16, 2017: Kivalliq Energy Announces \$3 Million Financing Package; Sandstorm Makes Equity Investment And Payment For Royalty Portfolio
Qilalugak	North Arrow Minerals / Stornoway Diamonds	Diamonds	7 km from tidewater; 9 km from Repulse Bay, Melville Peninsula; 7,143 hectares of contiguous mineral claims. Largest kimberlite in Nunavut.	News release January 17, 2017: North Arrow Acquires Remaining Interests in Qilalugaq (Nunavut) and Pikoo (Saskatchewan) Diamond Projects from Stornoway. A diamond drill has been mobilized to the community of Naujaat, just 9 km from Q1-4,

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				where a drilling and sampling program is planned for this spring and summer.
Committee Bay Gold Project	Auryn Resources (purchased North Country Gold Corp.)	Gold	Committee Gold Bay Project Highlights:  High grade gold endowment Existing exploration infrastructure 217,600 hectares with district scale discovery opportunities	News Release, April 20, 2017: Auryn Resources commences spring mobilization at the Committee Bay Gold Project and provides Arctic exploration update
Hackett River	Glencore	Zinc, Silver, Copper, Lead	Proposed open pit mine. One of largest undeveloped VMS massive sulphide deposits in the world. 104 km SSW of Bathurst Inlet. Estimated construction jobs: 800 Estimated mine jobs: 500	PFS initiated in September, 2012. No activity reported in 2015.



Meadowbank Mine. Source: Agnico Eagle.



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### **Project Maps**



