THREE TRENDS
THAT WILL SHAPE THE OUTLOOK FOR 2020

HIGHLIGHTS FROM OUR ANNUAL DIAMONDS SYMPOSIUM

AN A-Z OF ACTIVE CANADIAN-BASED DIAMOND COMPANIES

RIO TINTO SAMPLES STAR

STORNOWAY RESTRUCTURES
A Canadian natural resource company focused on exploring and developing Saskatchewan’s diamond resources

Diamond populations from the Star and Orion South Kimberlites include Special (+10.8 carats), Fancy (yellow) and a high proportion of Type Ila diamonds.
Contents

6

EDITORIAL
Diamond sector battles crisis fatigue ............... 4

A LOOK AHEAD TO 2020
Several catalysts could boost the ailing diamond industry next year
By Paul Zimnisky ........................................... 6

HIGHLIGHTS FROM OUR SECOND ANNUAL DIAMONDS SYMPOSIUM
By Alisha Hiyate ........................................... 9

BURIED TREASURE:
An overview of the latest news from Canadian-based diamond companies
By Alisha Hiyate ........................................... 12

STORNOWAY’S CREDITORS STEP IN TO SAVE RENARD
By David Perri ............................................. 18

RIO TINTO COMPLETES STAR BULK SAMPLE ........... 20

TRES-OR SEES VICTOR ANALOGUE IN GUIGUES PIPE ........... 21

KAROWE DELIVERS PINK AND BLUE STONES ........... 22

ON THE COVER:
Star Diamond’s Star-Orion South project, in Saskatchewan.
CREDIT: STAR DIAMOND

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November 2019
Diamond sector battles crisis fatigue

They say it’s darkest before the dawn. Let’s hope that holds true for the diamond sector.

We try to strike a hopeful note here at Diamonds in Canada about an industry that’s become such an inspiring and Canadian story about perseverance, determination, and the ability to adapt and change.

But conditions have become very difficult of late. As Paul Zimnisky points out (see page 6), we are currently in the third crisis the industry has seen in 15 years.

Recent figures from diamond powerhouse De Beers are illustrative. In the first half of 2019, De Beers’ revenue decreased by 17% to $2.6 billion (compared to $3.2 billion in last year’s first half). Its rough diamond sales fell by 21% to $2.3 billion (compared to $2.9 billion last year). Looking at its August sale alone paints an even starker picture, with revenue declining 44% to $280 million.

In response to the tough environment and thin margins in the mid-stream of the diamond business, De Beers has been unusually flexible with its customers, letting its sightholders defer purchases and lower their annual purchase quotas for the year.

Junior producers, who obviously can’t be as flexible, are struggling – or worse. Stornoway Diamond, which opened its Renard mine in 2016 with so much promise, has been bought out by its creditors (see page 18).

While Mountain Province Diamond, the 49% owner of the Gahcho Kué mine in the Northwest Territories, is doing much better financially than its peers, the company reported devastatingly low sales prices of US$52.5 per carat in its third-quarter financials.

Even Lucara Diamond, despite turning out one exceptional stone after another at its Karowe mine in Botswana, was trading at just above $1 at press time – half its share price 12 months ago and a quarter of where the stock was three years ago.

It’s perhaps a sign of the times that a 10-year senior vice-president of global sightholder sales with De Beers, Richard Whitby, recently joined lab-grown diamond company Altr Created Diamonds as CEO.

Yet there are reasons for hope.

The closure of Rio Tinto’s Argyle mine in Australia is on the horizon, with the miner confirming the timing will be at the end of 2020. The mine has been a high-volume producer of smaller and lower-quality diamonds (more than 800 million carats of rough) since it opened in 1985.

On the demand side, some miners affected by high fluorescence in their diamonds have begun efforts to reverse some of the discount the markets have been applying to these stones. Both Alrosa and junior Mountain Province have marketing plans in the works.

And way back at the beginning of the diamond pipeline, exploration for diamonds has not ceased, despite the headwinds. Close to home, exploration activity by De Beers, RJK Explorations and Tres-Or Resources along the Ontario-Quebec border, near Cobalt, Ont. and Notre-Dame-du-Nord, Que., is building on new knowledge (see page 21).

A non-remote diamond discovery – and potentially mine – could be a gamechanger for our industry, and a balm to soothe its crisis fatigue.

As ever, we welcome your feedback at ahiyate@northernminer.com.
Diamond Counsellor International (DCi) is the leading international independent rough diamond valuation and consultancy company, with over 49 years’ experience in the industry.

Algonquian Diamond Counsellor International (ADCi) is DCi’s Canadian subsidiary and has been the Independent Diamond Valuator (IDV) for the Quebec Government since August 2017. ADCi was established in 2007 to create a resident Canadian company qualified to secure Provincial and Territorial Government and mining industry valuation, modelling and statistical analysis contracts. ADCi provides a technically and financially competitive, highly experienced service for Canada and elsewhere, using highly qualified Canadian team members alongside their DCi counterparts.

Established in 1970, DCi currently advises on and values the rough diamond exports for Angola (since 1986), Quebec (through ADCi), Sierra Leone (since 1991), Liberia (since 2008) and Guinea (from 1991), handling diamonds worth over USD $1.5 billion each year. This equates to about 10% of global production by value and volume. DCi was awarded the government diamond valuator contract for Lesotho in 2014 which is currently being renegotiated.

DCi has held long-term contracts with the Governments of Botswana (1970–1982) and Namibia (1994–2004) in the past, training their own valuators to a level where the role was localised, and has advised private companies such as Argyle, Gem Diamonds, Dominion Diamonds, Vaalldiam Resources (in Brazil) and Guitier (formerly Aredor) on valuation and marketing strategy.

DCi has a proven track record of skills and knowledge transferal, or localisation, in Botswana, Namibia, Angola, Guinea, Liberia, Sierra Leone, Quebec and elsewhere.

DCi has been involved in the establishment and implementation of the Kimberley Process Certification Scheme (KPCS) from its inception and has undertaken work for the KPCS, most recently an audit of the rough diamond stockpile in Central African Republic, which led to some of the blocked goods being cleared for export. The team recently completed a technical consultancy for the African Tax Administration Forum (ATAF). DCi is a member of the World Diamond Council (WDC).

DCi has also been involved in designing and advising on marketing arrangements and monitoring of sales on behalf of clients, ensuring transparency and accountability, in particular avoiding hidden extra profits and transfer pricing issues.

ADCi and DCi are wholly independent. Their reputations and entire business are completely dependent on being independent of any marketing company within the diamond sector. They have extensive contacts in all sectors of the industry; brokers, miners, manufacturers, dealers in polished and rough and tender houses, these, combined with their valuations and monitoring of sales, inform the monthly changes in its Proprietary Price Book.

Please see DCi’s website for a summary of what it, and ADCi, can offer: www.diamondcounsellor.com
Following a strong first half of 2018, the balance of the year and most of 2019 was disappointing for the diamond industry. The most recent 18-month stretch has been described as a “very challenging environment” and even a “crisis.” The third significant industry lull in the decade-and-a-half since the dismantling of the De Beers monopoly seemingly indicates that the diamond industry is yet to find sound, sustainable footing in a new era.

A tightening of credit to diamond manufacturers followed the surfacing of a widely publicized alleged $2-billion fraud by well-known Indian industry titans Nirav Modi and Mehul Choksi in mid-2018. That credit tightening, in part, led to accelerated industry-wide mid-stream inventory deleveraging through 2019. An estimated at $10 billion, or approximately 25% of all inventory held by the mid-stream segment of the industry, was forced downstream as many manufacturers were unable to retain previous levels of finance and were pressured to scale down operations and shrink balance sheets. The flood of excess mid-stream supply more than offset a 5% year-over-year decline in mined diamond volume in 2019.

While the industry has since actively worked through the indigestion, demand challenges including an acceleration of the trade war between the U.S. and China, the industry’s two largest end-consumer markets, has stifled the process. Further, widespread, multi-month protests in Hong Kong, referred to as the Anti-Extradition Law Amendment Bill Movement, have impacted retail sales in the ever-important market and also interfered with business-to-business industry trade. In addition, a broad economic slowdown in Europe and a global trend towards negative interest rates has boosted the U.S. dollar, which has also pres-
sured global end-consumer diamond demand in recent quarters. Looking to 2020, if the global economic picture stabilizes or hopefully even improves – the U.S. would need to avert a recession and China would need to maintain a mid-single-digit growth rate – the diamond industry could finally be on much more stable footing by mid-year as industry-wide inventories approach much more sustainable levels. At an estimated $30 billion of inventory, mid-stream stocks are the lowest since 2011, coincidently the last time diamond manufacturing was notably lucrative.

Upstream players, led by De Beers and Alrosa, began building inventory in the second half of 2019 in order to support the market. However, both players were starting from relatively normalized inventory levels at the time and the excess stock recently accumulated should be manageable as it is not estimated to exceed 2015 levels, the high watermark in recent years following the mid-decade slowdown in China.

While macro-economic developments, including some of those mentioned above, will continue to impact end-consumer diamond demand and play a major role in health of the industry in 2020, here are three industry specific catalysts that could have a noticeable impact on the trade as well:

**The DPA’s “3 Billion Years in the Making” campaign**

In the fourth quarter of 2019, the Diamond Producers Association (DPA) debuted its latest campaign titled “The Diamond Journey” with the tagline “3 billion years in the making.” 2020 marks the fifth year since the group was established and the third consecutive year that the budget has exceeded $50 million. The 2020 budget alone is estimated to approach $100 million, the highest yet, but still short of the estimated $200-250 million that De Beers was spending annually during the monopoly era via the “A Diamond is Forever” campaign.

The result of large category marketing strategies such as this can be slow and gradual in nature, but can leave a lasting impact on a consumer’s perception of a product if communicated effectively. It has now been over a decade since the “A Diamond is Forever” campaign was retired and consumers’ positive perception...
of diamonds has faded. However, now a few years into the reintroduction of generic diamond marketing, results should begin to show, especially in the three primary markets being targeted: the U.S., China and India.

**Argyle officially closing**

Easily the industry’s most anticipated supply catalyst, Rio Tinto’s (NYSE: RIO; LSE: RIO) Argyle mine in Australia is finally set to officially close in 2020. In June 2019, management told media outlets that in late 2020, the company will be stopping operations and will start the rehabilitation of the site. The mine, which at one point accounted for almost half of global diamond output in volume, has produced 10-15 million carats in recent years, representing a high-single-digit percentage of the world’s output. An estimated three-quarters of Argyle’s output is brown in colour, lower in quality or smaller in size, the categories of diamonds that have been under the most price pressure in recent years. Argyle supply coming offline will further balance what has been an oversupplied diamond market for most of the last decade. The implication, which will likely be seen as a positive catalyst for the industry, will likely garner a sizable amount of media attention which could boost industry sentiment and reinforce consumers’ perception of natural diamonds as a fleeting, non-renewable resource, and thus rare and valuable.

Paul Zimnisky, CFA is an independent diamond industry analyst and consultant based in the New York metro area. For regular analysis of the diamond industry please consider subscribing to his State of the Diamond Market, a leading monthly industry report. Paul can be reached at paul@paulzimnisky.com and followed on Twitter @paulzimnisky.

Disclosure: At the time of writing Paul Zimnisky held a long position in Signet Jewelers, Lucara Diamond Corp, Mountain Province Diamonds Inc and North Arrow Minerals Inc. Please read full disclosure at www.paulzimnisky.com.
IT'S BAD OUT THERE

In a presentation on the state of the diamond market and diamond equities, Paul Zimnisky documented a devastating slide in market cap of listed companies. A basket of seven diamond producers (Alrosa plus six smaller producers) lost 50% of their combined market cap between January 2017 and June 2019 – 17% in 2017, 29% in 2018 and 16% in the first half of 2019.

A big part of the industry’s woes right now is the oversupply in smaller diamonds. However, global supply of diamonds is estimated to fall from 152 million carats in 2017 – when many new sources of diamonds came online – to 134 million by 2022. Demand will depend on many factors, top among them global GDP growth and consumer sentiment.
2 NEW USES FOR EXISTING TECHNOLOGY

At Star Diamond’s (TSX: DIAM) Star project in Saskatchewan, Rio Tinto (NYSE: RIO; LSE: RIO) is employing new technology – a Bauer trench cutter that has been used extensively in civil engineering applications, but never before to extract a diamond bulk sample. It’s also the first time the machine has been used to dig down to 250 metres depth; previously, it’s only been used to 150 metres. The machines were used to excavate 3.2-metre by 1.5-metre rectangular holes at the project, where Rio Tinto has an option to earn up to 60%.

“From each 10 metres of sample, we’re going to get 100 tonnes of kimberlite, which is a very significant increase from the 30-tonne samples that we got from the previous 48-inch drill program,” said Mark Shimell, project manager for Star Diamond.

At the time of the symposium, the first hole had been completed. At press time in October, the trench cutter rig had successfully completed all 10 planned holes.

The company is also incorporating XRT technology into the bulk sample processing plant it’s building onsite in order to recover large stones.

Separately, keynote speaker Chris Jennings said that North Arrow Minerals (TSXV: NAR) also plans to incorporate XRT technology in a smaller, mobile bulk sample processing plant it’s considering building at its Naujaat project in Nunavut.

“Thousands of diamonds have probably been crushed in processing plants,” he said, adding that it was “miraculous” that a 552-carat diamond found at the Diavik mine last October survived the crusher.

3 LAB-CREATED DIAMONDS DON’T HAVE TO BE A THREAT

A panel discussion on man-made diamonds at the end of the day attempted to sort fact from fiction in assessing the threat they pose to the industry.

“I was actually at a diamond conference in South Africa when De Beers announced Lightbox,” said Pangolin Diamonds (TSXV: PAN) president and CEO Leon Daniels, referring to De Beers’ initiative to sell jewelry made with its own lab-created diamonds. “Most of the delegates gasped in horror, but I thought it was a very smart move by De Beers.”

“As long as we can distinguish between natural and man-made diamonds, I think the natural industry’s going to be okay,” Zimnisky said. “It has a very resilient track record, and I wouldn’t bet against De Beers longer term. But I think the industry has to continue to take this very seriously – and I think it will lose market share in the lower priced diamond categories.”

Zimnisky added the industry should focus on protecting its bread and butter – the bridal market.

Jennings pointed to the advantage of natural diamonds as a store of value. “In 1960, a 1-carat flawless diamond cost $3,000. Today it’s about $30,000,” he said.

Indeed, the prices of lab-created diamonds have declined rapidly relative to mined diamonds with advances in technology.

At the same time, Zimnisky pointed to one big advantage the emerging industry has: “It tends to be younger, entrepreneurial types that tend to have tech backgrounds, so they’re just kicking the natural diamond industry’s ass when it comes to social media and any kind of digital campaigning,” he said. “And that’s concerning.”
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416-510-5104
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An overview of the latest news from active diamond explorers, developers and miners in Canada, and Canadian-listed companies working abroad.

Adia Resources
This spring, Adia Resources completed an initial diamond drilling program and ground gravity survey at its Lynx project near Oxford House, Man. While the company had planned to drill eight holes totalling 3,000 metres, a late start and mechanical issues limited the program to three holes totalling 1,258 metres. Adia expects to receive microdiamond results in the fourth quarter.

The company says the drill intercepts and survey support the interpretation of a diamondiferous ultramafic unit at least 3 km long and up to 315 metres wide.

Adia also reported results from two 20-litre beach sand samples taken at Lynx in 2018. A total of 163 diamonds in the +0.3-0.5 mm size fraction were recovered, as well as seven in the +0.5-1 mm size fraction. In the first sample, 58% of the diamonds were colourless and 40% were either dodecahedral or octahedral.

Adia raised $3.5 million for exploration at Lynx in February. The private company’s largest shareholders are Altius Minerals (TSX: ALS) and De Beers.

Surface sampling at Lynx has identified multiple kilometre-scale diamondiferous volcaniclastic units on the property.

Discovery outcrop at Adia Resources’ Lynx project in Manitoba.
CREDIT: ADIA RESOURCES
Arctic Star Exploration

Arctic Star Exploration (TSXV: ADD) announced the discovery of two new kimberlites at its flagship Timantti project near Kuusamo, Finland, in July. The Plug and Karhu kimberlites, which the company describes as heavily weathered and clayey, were discovered by trenching with an excavator. The new finds are located within 450 metres of the Vasa dyke swarm discovered last year, but do not appear to be physically connected to them.

They are about 2 km north of the Black, Grey and White Wolf kimberlites, which have all proven to be diamond-bearing. The company notes that it is encouraged by sampling results that have consistently reported more than 100 stones per 100 kg.

De Beers

As part of its resource expansion program at its 51%-owned Gahcho Kué mine, in the Northwest Territories, De Beers and partner Mountain Province Diamond (TSX: MPV; NASDAQ: MPVD) made a new kimberlite discovery in June.

The Wilson kimberlite is 200 metres away from Tuzo pipe, which is slated for development later in the mine plan, and located within the Tuzo pit design limits.

More than 22,000 metres of core has been drilled as part of the resource expansion program. Another small pipe – Curie – was discovered near Tuzo in 2018.

Company-wide, De Beers expects to produce 31 million carats this year, as it continues to produce to weaker market conditions. The miner’s production in Canada decreased 34% in the third quarter (from a year earlier) to 800,000 carats due to the closure of the Victor mine in Ontario mid-year.

On a different note, Gahcho Kué is at the centre of work De Beers is doing on carbon sequestration. In July, De Beers Canada received a $675,000 grant from Natural Resources Canada for its company-wide global carbon capture research program. The funding, from NRC’s Clean Growth program will support further research at Gahcho Kué on the potential to store large volumes of carbon in processed kimberlite through mineral carbonation. De Beers says laboratory experiments have yielded success and it will be following up with larger-scale field demonstrations at the mine. The company is working with academics from the University of British Columbia, Trent University, the University of Alberta and Institut national de la recherche scientifique (INRS) on the project.

Diamcor Mining

Diamcor Mining (TSXV: DMI) reported improved volume of carats of rough tendered, sold and delivered in its most recent quarter. The company sold 8,584.62 carats in total, with an initial 3,759.62 carats of rough generating US$569,059 or US$151.36 per carat.

Diamcor recently brought on a new operational team to refine the processing facilities at its Krone-Endora project in South Africa. As part of an evaluation of the plant, the team processed historical tailings and previously stockpiled material, identifying areas for improvement. The company reports new operating procedures are being implemented as a result.

Diamcor closed a $1.1-million term loan financing in August to deploy additional equipment to support increased processing volumes at Krone-Endora and for working capital.

Dunnedin Ventures

Dunnedin Ventures (TSXV: DVI) has homed in on a 3-sq.-km area of its Kahuna project in Nunavut as being the possible source of a discrete trend of high-quality diamond indicator minerals found in the Josephine Target Area (JTA) of the project.

The company collected 750 till samples in late 2018 at the JTA. In March, it reported that 109 priority samples had been analyzed and the results suggest the source of the indicator minerals is in the 3-sq.-km area located at the northwest up-ice end of the JTA.

The company says the next step will be to define pipe-like targets for its next exploration program.

GGL Resources

In July, GGL Resources (TSXV: GGL) conducted field work (heavy mineral sampling and till suitability mapping) at the ZIP project, part of its 100%-owned PGB property 70 km west of the Ekati mine in the Northwest Territories.

The work was completed in collaboration with the Northwest Territories Geological Survey (NTGS) as part of a regional-scale program aiming to develop and release new sets of geoscience data to further exploration in the area. GGL also has data from a low-level airborne magnetic and electromagnetic survey it previously conducted at the property.

At Arctic Star Exploration’s Stein project, in Nunavut, GGL carried out a ground geophysical survey this summer and identified multiple “compelling” targets with kimberlite-like signatures. The company is following up with further modelling and prioritization of targets for future drilling.

GGL has the option to earn a 60% interest in the project by discovering an in situ kimberlite. The project is located 45 km from tidewater on the Southern Boothia Peninsula. The project has not yet seen drill testing.

Lithoquest Diamonds

After completing an initial drill program on its North Kimberley project in northwestern Australia last year, Lithoquest Diamonds...
(TSXV: LDI) has made two new discoveries at the project this year.

Its second drill program, which started in October, saw 928 metres drilled in 11 reverse-circulation holes on three targets. Kimberlite was intersected on two of the targets. The third did not return kimberlite, however, the company still believes it to be prospective. Only one hole was completed on the target due to time constraints.

Early this year, Lithoquest also announced results from drilling on the 1804 kimberlite, the first kimberlite discovered at North Kimberley. No microdiamonds were found in the core. Microdiamonds have been recovered from a sample taken from weathered outcrop at the project, and from stream sampling.

Margaret Lake Diamonds
In May, Margaret Lake Diamonds (TSXV: DIA) completed ground, magnetic and electromagnetic surveys at its 60%-held Diagras property in the Northwest Territories. Arctic Star Exploration holds a 40% interest. Diagras hosts 23 known kimberlites and the surveys were focused around the known kimberlites and airborne geophysical anomalies with kimberlite-like signatures. Diagras is on trend with the Diavik mine, which is just 35 km away.

The company says that with three seasons of geophysical work having been completed, it now has enough drill targets to justify a drill program, which is slated for spring 2020. Seven targets have been identified for drill testing.
Mountain Province Diamond
In the third quarter, Mountain Province Diamonds (TSX: MPVD; NASDAQ: MPVD) reported lower production and sales prices for diamonds from its 49%-owned Gahcho Kué mine in the Northwest Territories. Production was down 16% from the year-earlier quarter at 1.5 million carats recovered at a grade of 1.72 carats per tonne.

Production for the year is still on track for 6.6-6.9 million carats. The mine is operated by 51% owner De Beers.

Achieved prices declined to US$52.5 per carat from US$72.5 per carat in the same quarter of 2018.

On the marketing side, the company is looking at ways to get higher prices on diamonds with fluorescence, which Gahcho Kué is known for. The junior plans to launch a marketing initiative before the end of the year.

North Arrow Minerals
This spring, North Arrow Minerals (TSXV: NAR) began an engineering design and costing study of a small-scale, mobile diamond recovery plant to facilitate a planned 10,000-tonne bulk sample at its Naujaat project in Nunavut. The company is investigating design options that would use TOMRA XRT sorting technology to recover diamonds greater than 3 mm (over 0.5 carat). Such a design and its onsite location would be expected to reduce costs while focusing on the higher-value diamonds that

Mining the 5034 kimberlite at Gahcho Kué in the Northwest Territories.
CREDIT: MOUNTAIN PROVINCE DIAMOND
would make the most difference to the economics of the mine.

In July, the company announced that its joint venture partner at the LDG project, Dominion Diamond Mines, hit kimberlite in the first hole of a summer exploration drilling project. LDG is close to Rio Tinto and Dominion’s Diavik mine; after the current program is complete North Arrow will retain a 21% interest.

North Arrow also completed a till sampling program this summer at its Loki project in Las de Gras, N.W.T., and sold an additional 0.5% royalty to Umgeni Holdings for a total of 2%.

Olivut Resources
In September, Olivut Resources (TSXV: OLV) completed a reverse-circulation (RC) drill program at the Seahorse project, part of Talmora Diamond’s (CSE: TAI) Horton property in the Northwest Territories. Olivut has the right to earn up to a 50% interest in the project by spending $1.2 million on exploration over two years and making a $200,000 payment to Talmora. The earn-in agreement was signed last summer.

A heli-portable RC drill was used to test anomalies previously identified from regional and detailed helimag geophysics. Olivut believes Seahorse may be the source of 18 macrodiamonds found in regional samples down ice to the west and for the positive indicator mineral chemistry found regionally.

Olivut also holds a 100% interest in its HOAM project in the Northwest Territories.

Pangolin Diamonds
Pangolin Diamonds (TSXV: PAN) began a Phase 1 drilling project at the MSC project in Botswana in October. MSC is a 10-sq.-km area within the company’s Malatswae project.

The drill program is following up on geophysical surveys and soil sampling that has now recovered 19 diamonds, including one macrodiamond. The company says it has recovered an unusually high number of diamonds from MSC, and that they’re concentrated in four different zones in the area, suggesting multiple kimberlite sources. Pangolin plans to drill at least five targets at the project, starting with percussion drilling, and if kimberlite is intersected in any of the holes, switching to core drilling.

The company raised nearly $850,000 in September.

RJK Explorations
RJK Explorations (TSXV: RJX.A) drilled two targets in March at the Bishop Nipissing diamond properties south of Cobalt, Ont. The claims were acquired in February from a prospector, Tony Bishop, who’s been looking for the source of the 800-carat Nipissing yellow diamond found in the area in the early 20th century.

RJK drilled a total of five holes for 559 metres. Drill results from the first target did not explain the geophysical target and further work may be done on the target after more sampling and geophysics work is completed. The second target returned “unique looking” core in three of four holes drilled. Results indicate a granitic breccia with no mantle material. RJK says additional work is necessary.

The company followed up the drill program with sampling and detailed geophysical work. RJK says the properties, totalling 20.9 sq. km, are located in a well-established kimberlite field within the Temiskaming Structural zone and contain at least 18 potential kimberlite pipes. It has drill permits for the locations of all potential kimberlite targets so far identified.

Talmora Diamonds
See Olivut Resources above.

Tango Mining
Tango Mining’s (TSXV: TGV) Oena diamond mine had its best quarter this year with 762.4 carats produced between May and August. The 339 diamonds were sold for an average price of US$1,346 per carat. Oena is an alluvial project in South Africa’s Northern Cape Province. Two contractors are at work on the project using eight pan plants to process run of mine material and tailings from previous operations.

Tango owns 43% of African Star Minerals, which holds 100% of Oena.

Tango will soon be renamed Southstone Minerals, a name change announced in July.

Tri-Origin Exploration
In October, Tri Origin Exploration (TSXV: TOE) has signed two exploration agreements with De Beers, paving the way for the diamond miner to conduct exploration and drilling on two of its properties.

The junior announced an agreement for its South Abitibi property in late September, and another for its nearby Nipissing Cobalt project, near Cobalt, Ont., in October. De Beers has identified targets on both properties, and the agreements allow the company to conduct preliminary drilling, and if kimberlite is found, to evaluate them for diamond content. Once the results
of the programs are in-hand the companies would work out more comprehensive property earn-in agreements.

Both drill programs were expected to start in October.

**Tsodilo Resources**

Tsodilo Resources (TSXV- TSD) is planning to conduct a bulk sample at its BK16 project in Botswana. The company plans to extract 20,000 tonnes of kimberlite.

As part of a first phase large diameter drilling program, Tsodilo extracted 2,077 tonnes for an initial assessment of the quality and value of the BK16 diamonds. That program showed that BK16 has the potential to host diamonds of US$281 to US$792 per carat in value and confirmed the presence of Type IIa diamonds (3.8% of those recovered), as well as confirming the presence of special stones (10.8 carats and above). Size frequency distribution analysis indicates that 2-5% of contained carats could be specials.

The phase 2 bulk sample will be taken via surface sampling of a box-cut style design and should result in the recovery of 800 to 1,600 carats and allow Tsodilo to compile an inferred resource. About 25 metres of overburden will be stripped to expose the kimberlite and the sample will reach a depth of 30-35 metres. Final design of the bulk sample and permitting are both under way.

**Rio Tinto**

Rio Tinto’s (TSX: RIO; NYSE: RIO) plan to deposit processed kimberlite into underground and open pit mine workings at Diavik is under review by the Mackenzie Valley Environmental Impact Review Board. The mine’s existing containment facility for processed kimberlite is expected to run out of space before the end of the mine life in 2025.

Diavik is operated by 60% owner Rio Tinto, with private company Dominion Diamond Mines holding a 40% stake.

Rio Tinto is also conducting exploration at Star Diamond’s Star-Orion South project (see page 20).
Stornoway’s Creditors Step In To Save Renard

BY DAVID PERRI

Stornoway Diamond (TSX: SWY) and its creditors reached a deal that will see the Renard diamond mine operate during corporate restructuring, after the company’s failure to generate positive free cash flow in 2019.

In October, the Superior Court of Quebec granted Stornoway an approval and vesting order from, a key condition for the company to execute transactions outlined in a letter of intent announced on Sept. 9, the same day it filed for and received protection from the court under the Companies’ Creditors Arrangement Act to pursue restructuring.

The deal will see Osisko Gold Royalties (TSX: OR; NYSE: OR), Diaquem (a subsidiary of government-owned Investissement Québec) and other creditors form an entity to acquire the company and its mine, 350 km north of Chibougamau.

Osisko and its partners will acquire Stornoway via a credit bid, using debt owed as currency in the transaction. Under the terms of the deal, the acquirers would assume all debt and liabilities owing, and Renard’s ongoing obligations. The partners will also extend a $20-million working capital facility, so that the company can operate Renard and meet short-term financial obligations while restructuring, Stornoway says.

Osisko is contributing $7 million, or 35%, of the working capital fund. It will keep its 9.6% diamond stream on the mine, but will reinvest proceeds from the stream for one year.

“The continued downward pressure on the market price for rough diamonds, as well as a variety of other factors and circumstances,” left the company unable to generate positive free cash flow in 2019, and maintain enough working capital, Stornoway said.

“Stornoway reported a $346.3-million net loss for the quarter ending June 30. The loss came from an impairment charge "driven by decreasing prices of rough diamonds resulting in a write-down of property plant and equipment, right-of-use assets and deferred transaction costs.” Stornoway generated adjusted earnings before interest, tax, depreciation and amortization (excluding the impairment charges) of $13.1 million, up from $1.6 million in the year-before quarter. The company reported it had $21.3 million in cash on hand.

Stornoway netted an average of US$76 per carat sold in the quarter, down 9% from the first quarter of 2019. In 2018, Stornoway’s diamonds fetched US$93 per carat. An independent prefinancing, bulk-sample evaluation in 2014 estimated Renard’s diamonds would fetch US$147 per carat.

In June, Stornoway’s creditors extended a bridge loan to keep Renard running. The company also formally solicited a restructuring transaction — a sale or investment. No adequate offers materialized.

Pierre Fitzgibbon, Quebec’s Minister...
of Economic Development and Innovation, told La Presse that Investissement Québec (IQ) pushed creditors for the deal outlined in the LOI, which keeps the mine operating. IQ has lent Stornoway more than $122 million and IQ subsidiary Resources Québec was Stornoway’s largest shareholder, with a 26% stake representing $180 million invested, La Presse reported. IQ will hold a 35% stake in the new entity in exchange for $120 million in debt.

Renard hit production in 2017 after raising almost $1 billion, and with support from the government, which spent $300 million on the mine’s 143 km access road.

In 2018, mining moved from open pit to more costly underground extraction, while supply spiked for smaller diamonds (less than 1 carat), which make up two-thirds of Renard’s production. The circumstances spelled ruin for the company.

“Now that mining has successfully transitioned underground, the project has been somewhat de-risked, in that respect,” Zimnisky says.

“Based on my analysis, I think the company needs a diamond price that exceeds US$100 per carat to be profitable, which will probably require a combination of improved market conditions, but also the recovery of more larger diamonds, which could be driven by the production ramp-up of Renard 3, and the second underground mining horizon of Renard 2.”

Zimnisky forecasts rough diamond prices will rise by a low, single-digit per cent (net of inflation) in the next two years.

“In general the global supply picture looks pretty good. I am a little more concerned about demand,” he says. “China is key… I would like to see a trade deal of some sort with the U.S. and a de-escalation in Hong Kong. Also, a weaker U.S. dollar would probably help demand.”

He adds: “The industry might be through the worst of the current woes, and with a favourable, industry-wide supply picture going forward, there appears to be a light at the end of the tunnel — if global demand holds.”

On Oct. 18, Stornoway announced that its shares have been delisted from the Toronto Stock Exchange. 🇨🇦

— This story first appeared in The Northern Miner.
Rio Tinto (NYSE: RIO; LSE: RIO) has completed its 2019 bulk sampling program at Star Diamond’s (TSX: DIAM) Star-Orion South diamond project, 60 km east of Prince Albert, in central Saskatchewan.

Using novel technology – a trench cutter sampling rig normally used in civil engineering projects that has been adapted for use at the project – the company has collected 8,271 wet tonnes of material. Each trench took between 9 to 17 days to complete, and reached a depth of up to 251.1 metres.

George Read, Star Diamond’s senior vice-president exploration and development, says that the new sampling technology has the potential to revolutionize future bulk sampling and mining of kimberlites like those at Star-Orion South.

“This ambitious sampling program required significant time to assemble all the components on site, but once it commenced the trench cutter has operated efficiently and successfully, recovering a large bulk sample from the Star kimberlite,” Read said in a release.

An onsite bulk sample processing plant is in the final stages of construction. Once completed, it will be commissioned using kimberlite from Orion South in a 2009 underground bulk sample program. Final diamond recovery will be done off site at a secure facility.

Rio Tinto is earning up to a 60% interest in the project under an agreement signed in 2017. The major will earn its first 51% in Star-Orion South once it completes the first two phases of work: a 10-hole bulk sampling program within the first three years, and then another 10-hole program (or $18.5 million in spending) within the following 18 months.

The Star and Orion-South kimberlites contain global resources of 66 million carats (193 million indicated tonnes grading 15 carats per hundred tonnes and 57 million inferred tonnes grading 11 cpht in Star; and 200 million indicated tonnes grading 14 cpht and 72 million inferred tonnes grading 7 cpht in Orion South).

Although they are very low grade, the kimberlites are known to host high-value, rare, Type IIa diamonds, as well as large stones.

This article was originally published on www.canadianminingjournal.com.
The Guigues kimberlite pipe in northern Quebec, 10 km from Notre-Dame-du-Nord, was discovered by De Beers in 1983. But despite its long history, it has never seen modern microdiamond testing.

Tres-Or Resources (TSXV: TRS) is hoping to change that this year with a five-hole drill program. The junior, which acquired the pipe in 2003, says advances in knowledge about diamond indicator mineral chemistry have made it clear that Guigues is a compelling prospect.

Tres-Or president and CEO Laura Lee Duffett says exploration at the project is already advanced. “We’re not looking for kimberlite, we’re not looking for chemistry – we already know what we have. These are now the more advanced tests to quantify and evaluate what we have at Gig.”

A previous operator at Guigues recovered a 2-mm by 1-mm by 0.5-mm macrodiamond through reverse-circulation drilling in 1989 – even though industry standards for drilling kimberlite and analyzing the samples did not yet exist. And Tres-Or has the results of five small samples taken from the pipe in 2008 that showed promising mineral chemistry (eclogitic garnets with diamond inclusion compositions).

Most promising is a paper published in November 2018 that shed light on the lherzolite chemistry of the exceptional diamonds from De Beers’ Victor mine, in northern Ontario (by Stachel et al). Duffett says the two kimberlites are both in the Timiskaming Structural Zone, are the same age (Lower Jurassic), and have the same chemistry.

The company has confirmation that the chemistry is the same from diamond legend Chuck Fipke, who recently conducted a reclassification of indicator mineral compositions...
KAROWE DELIVERS BLUE AND PINK STONES

Exceptional diamonds are nothing new for Lucara Diamond’s (TSX: LUC) Karowe mine in Botswana, but this fall has seen the miner unearth coloured gems as well as large high-value Type IIa stones. Lucara recently reported it has recovered a 123-carat Type IIa diamond, a 9.74-carat blue diamond and a 4.13-carat pink diamond – all from the South Lobe of the AK6 kimberlite.

The company also recovered a 375-carat gem-quality diamond from the processing of historic DMS recovery tailings, which were produced before the installation of XRT diamond recovery circuit at the plant.

In June, Lucara increased its production guidance for the year to 375-420,000 carats from 300-320,000 carats as a result of record processing plant performance. The company says the improved recoveries have been driven by greater asset availability and utilization, combined with an improved mine call factor. However, most of the production increase is from smaller diamonds, and as the majority of the company’s revenue comes from special stones (above 10.8 carats), Lucara left its revenue guidance unchanged at US$170 million to US$200 million.

At press time, the company was set to release its third quarter financial results in November.

In the first half, Lucara sold US$2.9 million worth of diamonds through its Clara digital platform, and grew its customer base to twenty from four. Lucara is planning to bring other producers onto the platform by year-end.

Also in the fourth quarter, look for the company to complete of a feasibility study for underground mining at Karowe. A 2017 preliminary economic assessment suggested underground development could add 10 years of mine life with production at 272,000 carats annually.

Tres-Or sees a Victor analogue in Guigues kimberlite, continued from page 21

eral grains from the Gig pipe. “We have our chemistry and our re-classification of the Gig grains from Dr. Charles Fipke, but what he also recognized is that the lherzolite component of the Gig kimberlite is probably going to make this discovery.”

In order to advance Gigues, Tres-Or has optioned its Fontana gold project, near Amos, Que., to private company Kiboko Exploration. The deal, which closed in July, will see up to $6.5 million invested in the project and in Tres-Or.

Tres-Or also completed a 10:1 rollback and closed the first part of a planned $1-1.2 million private placement in July, raising $659,000. It’s aiming to close the second part this fall, and drill five holes totalling 1,500 metres at the 5- to 7-hectare Guigues pipe in the fourth quarter. Budgeted at $679,000, the program will also test at least two more targets with 150-metre holes.

The plan is then to use the Gig pipe as a qualifying transaction to spin out the company’s diamond assets, get fair value for the assets by having the public company buy the assets, and dividend that back to Tres-Or shareholders, Duffett says.

The Lake Timiskaming area is something of a hot spot for diamond exploration at the moment. Across the border near Cobalt, in Ontario, De Beers is exploring at two of Tri Origin Exploration’s properties. And RJK Explorations has drilled several holes at its Bishop Nipissing project. The 800-carat Nipissing Yellow diamond was found in the area in the early 20th century.

Having access to road, power and other infrastructure is a huge advantage for a diamond exploration project. Another plus is that Tres-Or has had a memorandum of understanding with the local Timiskaming First Nation since 2002.

“The most important thing is we’re partners with the Timiskaming First Nation,” Duffett says. “So we’ll be making this discovery hand in hand with them.”

AD INDEX

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algonquin Diamond Counsellor International (ADCI)</td>
<td>5</td>
</tr>
<tr>
<td>Lithoquest Diamonds Inc.</td>
<td>8</td>
</tr>
<tr>
<td>North Arrow Minerals</td>
<td>10</td>
</tr>
<tr>
<td>Northern Miner Mines Handbook</td>
<td>IBC</td>
</tr>
<tr>
<td>Northern Miner</td>
<td>11</td>
</tr>
<tr>
<td>Saskatchewan Research Council</td>
<td>OBC</td>
</tr>
<tr>
<td>SRK Consulting (Canada) Inc.</td>
<td>15</td>
</tr>
<tr>
<td>Star Diamond Corporation</td>
<td>IFC</td>
</tr>
<tr>
<td>Talmora Diamonds Inc.</td>
<td>14</td>
</tr>
</tbody>
</table>
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