

# Nouveau Monde Graphite COO, Karl Trudeau, on the upcoming Demo Plant

You were director of Imerys mine at Lac-des-îles, Quebec which is known as the only North-American graphite mine currently in production. What have you seen in Nouveau Monde Graphite Inc. (TSXV: NOU | OTCQX: NMGRF) to make you resign from your position with a billion-dollar company to join a junior?

**Karl Trudeau:** Imerys is a good employer and I enjoyed my position as their mine director at Lac-des-îles. At this point in my career, I was in need of a new challenge, knowing that Lac-des-îles is likely getting on its last few years of production. The vision of Nouveau Monde's management team was enticing enough to make me do the move and become their COO.

Please tell us about your role at Nouveau Monde and how your experience at Lac-des-îles relates to the challenges you will be facing?

**Karl Trudeau:** I have several years of experience mining and producing graphite at an industrial scale. Nouveau Monde was in need of a COO who would be instrumental in selecting equipment, in putting in place efficient and effective mining and processing operations and in building a team around these. One also needs to understand that graphite is a relatively opaque market so knowing who the key players are in the industry is clearly an asset for someone in my position.

Nouveau Monde has publicly announced the setup and commissioning of a demo plant by mid-2018. What are the key milestones of this project and how far are you already advanced?

**Karl Trudeau:** In early January, we started receiving the first

pieces of equipment. To celebrate the milestone, we published pictures of these on our Facebook company page. What made it possible to achieve this so quickly was the signing, last fall, of a 3-year lease agreement with Louisiana Pacific, the owner of the industrial building where we're setting up our demo plant. The pictures that one can see are of the equipment pieces as they were delivered in our industrial plant. The facility is ready to accept additional equipment and we're actively working on placing orders for the pieces requiring long lead orders. So, in a nutshell, we are following our timeline and milestones are being met. We are confident that our demo plant will start producing flake graphite by mid-2018.

What is the vision behind this demo plant? What are you trying to achieve and how does it stand as a good chance of creating value for your shareholders?

**Karl Trudeau:** Selling graphite is tricky since there are no exchange-based marketplaces. A producer needs to establish sales agreements which are typically known as "offtake agreements". In the current market, buyers will only commit if they are reasonably comfortable that the producer can meet their specifications and can produce enough of the material. What we're getting ready to do is having enough capacity to produce 1,000 tonnes of flake graphite per year which we will then sell to North-American buyers. This will allow them to qualify our products. We will also use the demo plant to produce 250 tonnes of value-added products such as purified spherical graphite, expandable graphite and graphene.

Our vision is to leverage our location in Southern Quebec and use cheap and green hydro-electricity as much as possible to keep production costs and the environmental footprint as low as possible. You can say that we are following in the footsteps of Nemaska Lithium where they were successful in using hydro-electricity as much as possible in their lithium refining process. They clearly innovated and were successful

in getting government grants to that effect. This is what we want to emulate in the graphite space.

What are the key attributes that make Nouveau Monde unique among other graphite juniors? How does this demo plant leverage these attributes?

**Karl Trudeau:** Our flake size distribution is one key attribute. We have about 48% large and jumbo flakes, 12% of mediums and the remainder are fines. This distribution ratio will allow us to tap a large portfolio of potential buyers. Just like in the real estate market, our location is another key attribute as we are in proximity of existing infrastructures and in a mining friendly jurisdiction. As per our pre-feasibility study (PFS), we have a competitive production cost per tonne of flake graphite and the beauty is that once it's produced, it's already here in North-America. No need for overseas transportation which is expensive and adds to the environmental footprint. So, our plans are to sell the most profitable flakes in the North-American market and further process what remains into value-added products using cheap and green hydro-electricity. I strongly believe that lithium-ion battery and EV manufacturers do care about the environmental footprint of their suppliers. The demo plant will allow us to demonstrate these capabilities and also delineate the costs of these processes at the commercial scale of 52,000 tonnes of flake graphite (about half will be further processed into value-added products).

What is the budget for this demo plant and are you fully funded to make it through the construction and commissioning phases?

**Karl Trudeau:** We've put up a budget of \$12M for the demo plant. We are fully funded to make it through construction, commissioning and the production of our first tonnes of flake graphite.

Will you be seeking out government grants and how significant could these grants be in the overall budget?

**Karl Trudeau:** Yes, we believe we have strong business cases for innovation and for other government grants in the areas of energy efficiency, value-added products, social acceptability and tailing management.

This demo plant is a complex endeavor, have you added key personnel in the last few months to make this vision a reality?

**Karl Trudeau:** We've worked hard to implement the CEO and Board vision. We've been successful in attracting some of the best graphite experts and we now have about 15 full-time employees (FTEs). By the end of the year, when the demo plant is fully operational, we expect to be about 35 FTEs. Our management team brings about 30 years of recent graphite experience.

Both the graphite deposit and the demo plant are located next to existing infrastructures and a town of potential employees. That's a blessing only if the population is fully behind the project. How are you managing social acceptability to ensure you've got the backing of the local people?

**Karl Trudeau:** You are right to say that both the graphite deposit and the demo plant are next to existing infrastructures. They are also only 5 km apart from one another. We do not foresee serious logistic challenges during the operations of our demo plant. On the topic of social acceptability, Nouveau Monde Graphite has been very proactive over the last 4 years. We held 3 public meetings with the local people to keep them informed of the project and more than 50 small groups or individual meetings. We've been very transparent with our stake holders and we opened our head office on the main street of the village. People are always welcomed to stop by and ask questions. That is why we enjoy strong support for our project. We were also proactive with

the Atikamekw first nation. We involved them from the onset and they've been supporting us.

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## **Nouveau Monde – A Corner of the Graphite Triangle**

We guess it's just the way of the world that the markets don't seem to be able to "walk and chew gum at the same time". As Lithium has grown in furore, its fellow traveler graphite has been somewhat eclipsed and investors have definitely forgotten that there is a relationship between the two as graphite is a big(ger) component in Lithium Ion batteries. With up to 150kg of graphite required for the LiB in an electric vehicle, new sources of graphite are in demand, specifically in North America where there is currently limited supply. Admittedly the price of graphite is lower than Lithium's but that does not change the fact that graphite is a key part of the mix.

Like all things related to the mining space, trends come and go, and graphite lit up part of the darkest period of the mining slump for a brief while. There was the usual large inflow of players and then the gradual fade back to reality. The impetus for the initial rush was the lack of Western production of graphite, which was virtually nil. Two to three years on (depending on when you date the resurgence in graphite interest) the number of mines to have made it to production is almost negligible and the West is as much if not more dependent upon Chinese supply as before.

The fleeting nature of the graphite boomlet meant that many companies managed to raise a bit of money and a few companies managed to raise a lot, but the roll call of those still

around and still with cash on the balance sheet is much reduced. Fortunately for those that survived the down times we are now seeing a revival in mining financing that is spilling out of first mover sub-sectors (like Lithium and Gold) into other metals/minerals now.

It is therefore worth looking at one of the survivors in the graphite space and highlight what it is doing, so a review of Nouveau Monde (TSXV:NOU)(OTC:NMGRF)(FRANKFURT:NM9) seems timely.

Our first encounter with this company was in October 2013 when we met with the CEO, Eric Desautels on their London roadshow. The thing that struck us most was the quality of the share register, because when it comes down to it a quality shareholder base will more likely be around for the long-term than a mass of flippers or hedge funds. Currently the institutional base of Nouveau Monde consists of four of the major Quebec-based institutions with around 30% of the shares. As those in the mining space know the *Quebécois* look after their own and if the management is serious and the project is in the best interests of the province then the wagons are circled and support given through the down-times. This has proved to be the case with this company as the base is heavyweight indeed, with the names being:

- Desjardins – Largest association of credit unions in North America
- SIDEX – Major Québec Government fund to invest in Québec mineral exploration companies
- Fonds de Solidarité – FTQ – Québec's largest central labor body
- SODEMEX – Québec-based mining investment fund

We would note again that these are NOT the type of institutions that invest in concept stories with no interest in moving to eventual production. The thing that clearly excites the local institutions is that Nouveau's Matawinie

project has the potential to take up the slack when North America's only existing producing site, the Lac-des-Îles mine of Imerys, shuts down around 2020. This promises to keep Quebec in contention as the go-to place for this mineral in North America., Moreover we suspect they also want to be in the picture for industrial spin-off benefits such as battery plants which would make sense in view of the province's endowment with Lithium and the likelihood of two major mines (one being Nemaska's) being functional before the decades end.

The rundown of Imerys's Lac-des-Îles mine is no secret as the company has disclosed that it is nearly depleted, with enough ore through 2020, with output varying between 20,000 to 25,000 tons per year, representing 95% to 100% of North American supply. At the risk of seeming like a body-snatcher, Nouveau Monde is plotting on moving into the space to be left with the soon-defunct Imerys operation and is designing its operation to produce 50,000 tons per year to enable the capacity to deliver large quantities, so effectively doubling North American supply.



This map above is what we like to call the Graphite Triangle. Unlike the Bermuda Triangle where things mysteriously disappear, the Graphite Triangle is where real projects in the graphite space appear. Matawinie's proximity to Imerys' processing plant on the outskirts of Montreal is patently obvious and with it the transport links to take the product to other North American locations or to Europe. This then begs the question as to whether Nouveau Monde might end up as a target for Imerys to plug their production pipeline's "leak" post-2020?

## **Conclusion**

With the stragglers in the Graphite space likely to be repurposed for other metals/minerals in the resurgent mining

space the serious players will have a less crowded stage on which to perform... and it shall be all about performance. Nouveau is on the cusp of the DFS process which shall then lead into the funding and mine-build. It is fortunate that the sentiment amongst investors has turned to the better thus potentially making the funding task easier than it would have been over the last two years. With a capex of \$122mn it is neither the cheapest mine to build nor is it the largest capex we have seen in the graphite space. With an NPV of over \$400mn, it shows the type of strong multiple of NPV over capex that we like to see, and that makes it worthwhile for a project to "get out of bed in the morning".

The old real estate adage "Position, Position, Position" comes to mind when sorting the most likely winners from the also-rans. Nouveau definitely has itself well positioned in the Graphite Triangle of Quebec and that has brought it the support of major institutions with a vested interest in seeing the mining of graphite continue and expand in the province. Beyond that it ticks most of the boxes that Imerys would need to tick in hunting for a replacement for its current capacity in North America.