Nano One Materials' Blondal on the joint development agreement with Saint-Gobain

written by InvestorNews | January 8, 2019

"The agreement we have with Saint-Gobain is to jointly develop technology that will enhance, the thermal processing of cathode materials for lithium-ion batteries. Ideally we will develop this technology and have an offering, a thermal processing offering for cathode manufacturers. This will be in the lithium-ion battery market and obviously it will be with a multinational company that brings a great deal of credibility to the table." States Dan Blondal, CEO, Director and Founder of Nano One Materials Corp. (TSXV: NNO), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

Tracy Weslosky: Congratulations on your joint development agreement with Saint-Gobain. We are so excited for Nano One Materials. Can you tell us more about this deal please?

Dan Blondal: Yes. Saint-Gobain is a large multinational corporation. They have got a 350 year history and they have deep roots in materials and ceramics that are used in buildings, aerospace, energy. Nano One, as some of your listeners will know, is a technology company. We are focused on the production of cathode materials for lithium-ion batteries. What this deal is, is about where our business interests collide. We meet at the final stage of cathode production process. That is where cathode patterns undergo a high temperature process in a furnace. It is as simple as that. We are delighted to be collaborating with a company like Saint-Gobain. Obviously they are very large and they have a very big presence. It is a testament to Nano One, to our innovative technology and of

course to our people and the know how that we bring to the table.

Tracy Weslosky: I could not agree with you more. How would you describe the benefits for Nano One with this collaboration? Can you tell us as little bit more about that?

Dan Blondal: The agreement we have with Saint-Gobain is to jointly develop technology that will enhance, the thermal processing of cathode materials for lithium-ion batteries. Ideally we will develop this technology and have an offering, a thermal processing offering for cathode manufacturers. This will be in the lithium-ion battery market and obviously it will be with a multinational company that brings a great deal of credibility to the table.

Tracy Weslosky: Perhaps you can talk a little bit more about how Nano One stands to benefit from this collaboration and joint development agreement.

Dan Blondal: We stand to benefit because we will be able to enhance our cathode materials. We will enhance our thermal processing offering so that is one stage of our process for making these materials. Obviously we believe we can improve the performance, we can bring cost efficiencies to the table and we bring a world-class partner to the table as well, as we start to roll our technology out in a commercial way.

Tracy Weslosky: You have had a lot of really substantial good news this last year Dan, you and your team at Nano One Materials. I noticed you also just put out an <u>announcement</u> for your 10th patent. Tell us a little bit more about that.

Dan Blondal: That is our 10^{th} patent. We now have patents in the U.S. and in Canada and Japan, Korea and Taiwan as well. We also

have 30 more patents that are currently pending in jurisdictions all over the world, but primarily in the battery important jurisdictions so that would also include China and Europe as well. We are very confident in our patent portfolio and its ability to position us in the marketplace and protect the technology that we have moving forward.

Tracy Weslosky: Of course, looking back on your news for the year Dan, is there anything else you would like to draw our viewers' attention to?...to access the complete interview, click here

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Don Bubar on the business of lithium today

written by InvestorNews | January 8, 2019

"The lithium business it is all about finding where to position yourself in the marketplace with the type of resource you have. Ours is a different one with different minerology than many of the resources that are being looked at now to serve the battery industry. As you recall, historically we looked at it primarily as an opportunity to produce an industrial mineral product for specialty glass and ceramic products. That is still a pretty big market out there. That is an opportunity for us to serve especially now that lithium is becoming more scarce for the glassmakers out there now that the battery industry has come along with a huge appetite gobbling up a lot of the available

supply." States Don Bubar, President, CEO and Director of <u>Avalon</u> <u>Advanced Materials Inc.</u> (TSX: AVL | OTCQX: AVLNF), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

Tracy Weslosky: Don you have just put out your East Kemptville Tin Site <u>PEA results</u>. That is a former producer and is an advanced stage project. Can you tell us what these PEA results meant for us as investors?

Don Bubar: Basically Tracy they are confirming that it is an economic proposition for us. While it is small-scale the whole approach has been to do something innovative there in terms of how we can approach this brownfield site with a model for addressing the long-term environmental liability there, remediating that, fully rehabilitating the site while extracting value out of the waste materials that were left behind on the site. We needed to show that that could be done economically. Effectively the PEA results confirm that. Will not make a lot of money, but it will be a really good interesting new model for how one can apply innovative thinking and new technologies to these brownfield sites that tend to be treated as perpetual liabilities as opportunities for entrepreneurs to extract value out of these sites.

Tracy Weslosky: Okay, well, that sounds very exciting to me. The industry has always acknowledged you for being a leader in sustainability and this type of forward thinking. You also have an advanced stage project in Kenora, Ontario, lithium. Can you tell us how that project is proceeding?

Don Bubar: That is coming along slowly. As you know, with the lithium business it is all about finding where to position yourself in the marketplace with the type of resource you have. Ours is a different one with different minerology than many of the resources that are being looked at now to serve the battery

industry. As you recall, historically we looked at it primarily as an opportunity to produce an industrial mineral product for specialty glass and ceramic products. That is still a pretty big market out there. That is an opportunity for us to serve especially now that lithium is becoming more scarce for the glassmakers out there now that the battery industry has come along with a huge appetite gobbling up a lot of the available supply. The resource is ideally suited to that with this high purity lithium mineral petalite. We are now looking at that as, sort of, near-term development opportunity, get into production, produce the industrial mineral product, which is much lower capex than trying to make the battery material, establish an operating profitable business. Then build on that by expanding, as you see, the opportunities to further serve some of the growing markets going forward. We think that is a much more conservative and less risky way to get started in the lithium business and position yourself with a stage development model and open to different possibilities on how to serve the markets...to access the complete interview, click here

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Gorman on Graphite and the Battery Revolution

written by InvestorNews | January 8, 2019 June 21, 2018 — "When you look at graphite and you look at its conductivity, its thermal abilities and its hardness, it cannot be replaced by any other material. We have to work with the governments, which we are doing right now. We have to work with the engineers, which we are doing right now. And we have to work with the end-user to understand what they need because right now we are sitting on the cusp of something that is going to happen and it is called the battery revolution." states Paul Gorman, CEO of NovoCarbon Corp. (TSXV: GLK | OTCQB: GLKIF), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

Tracy Weslosky: Paul, NovoCarbon is going to be the only producer of spherical graphite in North America. Did I get that right?

Paul Gorman: You did get that right. We have spent a lot of time, a lot of energy, and a lot of money to get to where we are today under the NovoCarbon banner to be able to produce a material for battery manufacturers here in North America.

Tracy Weslosky: I am going to back you up because not all of us understand what spherical coated graphite is. Help me understand this.

Paul Gorman: It is simple. I mean, a cupcake is a cupcake with icing and frosting on it. How do you get to that point? You need bakers. You need icing. You need a way to deliver that cupcake and it has got to be consistent every time or your customers are not going to buy it. We are in the business of providing a quality material that is spherinized, shaped, and coated for an anode powder. If you cannot make a cupcake you are out of business and that is all we do. It is basically baking and knowing how to do it.

Tracy Weslosky: I love this. This is a metaphor I can understand. Let us also then discuss the end-users, the offtake agreements. Targets then would be what, the battery makers?

Paul Gorman: The battery makers are where we are targeting. Mega

factories are being built around North America right now. We are taking advantage of what we started 4 years ago, which was to qualify and sample material that we get as feedstock from Brazil, bring it in, and show it to the customers. When they actually go through their engineering process the clock starts. \$2 million dollars later and 3 years later we are now at the point we are actually qualifying and sampling with the big makers here. We are very happy because there is no other competition that stands in our way.

Tracy Weslosky: Let us discuss one of the other critical aspects of these critical materials, which is, of course, the Chinese are producing 80%, Trump is talking to everybody about sustainability and getting it out of North America. Obviously this would be impacting you and your shareholders positively or so I am guessing.

Paul Gorman: Absolutely. The value is there. We need the miners to mine the feedstock. We need the battery companies to be successful in building batteries. We are such a small part of that, but we are a very important part of that. When you look at graphite and you look at its conductivity, its thermal abilities, and its hardness, it cannot be replaced by any other material. We have to work with the governments, which we are doing right now. We have to work with the engineers, which we are doing right now. And we have to work with the end-user to understand what they need because right now we are sitting on the cusp of something that is going to happen and it is called the battery revolution...to access the complete interview, click here

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Northern Graphite Greg Bowes InvestorIntel Summit Presentation

written by InvestorNews | January 8, 2019

May 30, 2018 — "Why should you be interested in graphite? As I mentioned earlier, graphite is the anode material in lithium-ion batteries. That is a \$20 billion dollar a year business that is growing at over 20% a year. That chart is historical. That is not a forecast." states Gregory Bowes, CEO and Director of Northern Graphite Corp. (TSXV: NGC | OTCQX: NGPHF), in a recent presentation at the 7th Annual InvestorIntel Summit — Buds, Batteries & Blockchain 2018.

Gregory Bowes: Northern Graphite is a company that is based in Ottawa, Canada. We have about 65 million shares outstanding. We consider that we have the best new graphite project. I am sure everybody says that so my job today is to convince you why it actually might be true in our case. It starts with location. If any of you want to do a site visit you can jump in a car and you would be there in $4\frac{1}{2}$ hours. It is between North Bay and Ottawa, off the Trans-Canada Highway. It has a reasonable capital cost. It has a realistic production target relative to the size of the market. It is the highest percentage of the more valuable large flake production. It has the lowest marketing risk of any new project. It has the highest margin and the best economics. It is not a junior exploration story. We have a full feasibility study and we have our major environmental permit. The next step is \$100 million dollars Canadian and building a mine. We have

developed a patent pending battery material technology, which I will tell you a little bit more about, which converts that graphite mine concentrate or helps convert it into the anode material for lithium-ion batteries. Why should you be interested in graphite? As I mentioned earlier, graphite is the anode material in lithium-ion batteries. That is a \$20 billion dollar a year business that is growing at over 20% a year. That chart is historical. That is not a forecast. As usual the best investment advice comes from looking around you. We all know the proliferation of personal devices, cameras, cell phones, laptops. All of that market is driven by lithium-ion batteries. This is lithium-ion battery manufacturing capacity that is in the pipeline. It is set to quadruple by 2021. If that happens we are adding 300 gigawatt hours of production capacity. You can see at the bottom that would require a doubling of annual graphite production. Even if these plants were only to operate at 20% or 30% or 40% of capacity due to lower than expected growth in EVs, you would still need multiple new graphite mines. This is a little bit of a comparison. The three main battery minerals are graphite, lithium and cobalt, obviously. The different in the graphite market you can see it is quite a bit bigger than the other two. In terms of battery demand, it still has not got to where the other two are yet. That is one of the reasons that the graphite price has not performed as well, nearly as well, as lithium and cobalt. The interesting story is that if you add 100 gigawatt hours of battery manufacturing capacity or demand, you are looking at 160% increase in graphite demand so there is much greater leverage there than there is in the other two minerals. That leverage comes from two factors that people do not often consider. You talk about how much lithium you need and how much graphite you need in a battery...to access the complete presentation, click here

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Nano One's Stephen Campbell on making better lithium ion battery material

written by InvestorNews | January 8, 2019
March 19, 2018 — "As the market expands drastically for battery electric vehicles there is a potential for looking at that technology again and we have a new process that we believe is much better, much more efficient and makes better material," states Dr. Stephen Campbell, Principal Scientist for Nano One Materials Corp. (TSXV: NNO), in an interview with InvestorIntel's Peter Clausi.

Peter Clausi: Principal scientist implies a PhD. What is your doctorate in?

Stephen Campbell: It is in electrochemistry, semiconductor electrochemistry and fuel cells and batteries.

Peter Clausi: How long have you been in the field?

Stephen Campbell: 35 years.

Peter Clausi: And still learning every day.

Stephen Campbell: Always. Every day there is something new.

Peter Clausi: As principal scientist you guide a team of researchers at Nano One.

Stephen Campbell: I have a very great team of people in Nano One. They do great things.

Peter Clausi: How many people are on the team?

Stephen Campbell: 10 or 12 people.

Peter Clausi: What is the biggest project you are working on today?

Stephen Campbell: The biggest project we are working on is the commercialization of our process to make cathode materials for lithium-ion batteries. We have a number of different materials. The high-nickel materials is a big interest so is the high-voltage spinel materials.

Peter Clausi: Now the lithium-ion batteries have been in existence really since late 1970s, commercialized in early 2000s. You are saying you have a new process for the lithium side or the cathode side of the battery?

Stephen Campbell: The cathode material side of the battery, the technology that was invented in the 1970s. As the market expands drastically for battery electric vehicles there is a potential for looking at that technology again and we have a new process that we believe is much better, much more efficient and makes better material.

Peter Clausi: What is the difference?

Stephen Campbell: The difference is that the traditional way is very much a solid state reaction. The lithium and cobalt you just grind the two together and fire it whereas we mix our metals together in solution and then fire them all later so the firing time is much shorter.

Peter Clausi: Do you think they will make for a longer lasting

battery?

Stephen Campbell: It should do because the homogeneity is really, really important and as materials get more complicated and the new materials that are coming out they are very, very much more complicated and so they need better control over how you make it and the solid state you really cannot do that.

Peter Clausi: Does that have the same memory fatigue that you find in other lithium-ion batteries?

Stephen Campbell: Similar, but it is better. They suffer from the same.

Peter Clausi: So the fatigue is actually less not better.

Stephen Campbell: Yes, it is. It depends how you say it. The battery is good, not bad.

Peter Clausi: How close are we to commercialization?

Stephen Campbell: Very close. We have a process. We have a pilot plant where it is scalable. We proved it...to access the complete interview, <u>click here</u>

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eCobalt's Farquharson on the

rising cobalt market star

written by InvestorNews | January 8, 2019
March 13, 2018 — "The compound annual growth rate of cobalt is 11% projected over the next 10 years. It is all being driven by the electric vehicles and lithium-ion batteries. The space is just completely evolving here with all of the major manufacturers, auto manufacturers, wanting to get into the space." states Paul Farquharson, President, CEO and Director of eCobalt Solutions Inc. (TSX: ECS | OTCQX: ECSIF) in an interview with InvestorIntel's Andy Gaudry.

Andy Gaudry: Thank you very much for coming. We are at PDAC. We want to get right to it. We want to talk about that bought deal you just announced on your latest release.

Paul Farquharson: Absolutely. Just last week we closed a \$30 million dollar <u>financing</u> lead by TD with BMO Capital and Canaccord participating in the financing. That money is just going to ensure that we can look after all of our preconstruction in the spring of this year leading into full production.

Andy Gaudry: Wonderful. For that full production, when will that occur?

Paul Farquharson: Following the same timeline, we have an optimized feasibility study coming out in Quarter 2. The Quarter 2 feasibility study will actually be the production decision that we will make. If we can stick to that timeline with the money we have in the bank today that will give us a going underground critical path probably Quarter 3 2018. We can be in production 12 to 14 months after that.

Andy Gaudry: Cobalt has had a good run this year.

Paul Farquharson: Absolutely. Cobalt is trading \$38 a pound. The compound annual growth rate of cobalt is 11% projected over the next 10 years. It is all being driven by the electric vehicles and lithium-ion batteries. The space is just completely evolving here with all of the major manufacturers, auto manufacturers, wanting to get into the space.

Andy Gaudry: What do we expect from eCobalt for shareholders in the next quarter or two?

Paul Farquharson: The next quarter or two we will be finalizing our optimized feasibility study.....to access the complete interview, <u>click here</u>

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