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Ahead of the Herd with NioGold Mining

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Ahead of the Herd

As a general rule, the most successful man in life is the man who has the best information

Today I'm talking with Rock Lefrancois, P.Geo., President and Chief Operating Officer for NioGold Mining Corp TSX.V – NOX

Rock has over 25 years of experience in the search for and valuation of various types of precious and base metal deposits across the North and Central American Cordilleras and the Abitibi Greenstone Belt. He has served as senior geologist for mid-tier mining companies, notably Cambior and Aur Resources.

Rick: Rock can you start with NioGold's history, how it came to be and the assembly of such a large land package.

Rock: NioGold was a restructured company. It went through a couple of name changes, first Penn-Gold, and then it became Moreno Ventures. Mike Iverson, NOX's chairman and CEO, took over the company at an AGM. He had major shareholders behind him and he'd done it in the past with two other companies that became Fortuna Silver Mine and Northland Minerals.

By 2003 the company was restructured and renamed NioGold Mining Corp. Mike was in touch with a group of geologists and prospectors in Quebec. They had a portfolio of projects in Quebec, mostly gold, but also diamonds, niobium and rare earth projects. They struck a deal in 2003 and put those properties into NioGold.

The main project that they had on their list was the Montviel niobium/rare earth property, it had some good historical intersections of niobium and some holes drilled in 2002 had similar results. Montviel was sold 100% outright to GeoMega Resources (for a 9.8% position in their stock capital in and a 2% royalty on production), who then made a large discovery of rare earths. Right now they're on their second phase of drilling.

But what NioGold is really all about happened in October 2004. There was a local junior company called McWatters Mines. McWatters had acquired two major assets in the Val-d'Or/Malartic area from Placer Dome - the Sigma Mine and the Kiena Mine Complex.

In 2004 McWatters went bankrupt; all their land became open for acquisition. Osisko Mining purchased the Canadian Malartic Project, Wesdome Gold Mines purchased the Kiena Mine

Complex, and NioGold managed for \$50,000, to purchase, right in the heart of the camp, three large claim blocks that were relatively underexplored compared to the rest of the area.

I came on board in April 2005. The other gold properties NOX had acquired were of limited interest because the potential for the discovery of a large gold deposit just wasn't there. Mike and I got together and talked about increasing our land position, but just in the Malartic camp. We kept building our land position because the opportunity was there.

Things were just getting going on the exploration front in that camp, especially in the Malartic which hadn't seen a lot of exploration since the 80s. We started making deals with local prospectors and other junior companies to start attaching ground to the claim blocks we already had. We were especially trying to tie up ground on gold mineralized belts, especially segments that had seen very limited drilling in the past.

We built the one big claim block we now call the Malartic Block. Then in early 2006, we signed a deal with Aur Resources.

Aur Resources had the other 50% of Marban that we didn't own and 100% interest in the First Canadian and Norlartic properties. So we made a deal to acquire 100% interest in those three properties, which included three past producing mines, about 600,000 ounces of gold and a lot of upside according to our due diligence.

Rick: And this was a plan that you guys formulated, put together and executed over a period of several years, correct?

Rock: That's right. We did a bit of drilling in 2006, but really got aggressive in 2007 around the old Marban, Norlartic, and Kierens (First Canadian) mines. We concentrated mainly on the Marban deposit that had seen no exploration or even evaluation since 1974, since the mine closed. We noticed there was a lot of lower-grade mineralization near surface that the old miners had never evaluated, and plus we were hitting some new zones below the old mine workings, which were really relatively shallow.

Rick: And gold was going up at the time making everything look all the better. How did the deal with Aurizon come about?

Rock: By 2010 we had come up with our second resource estimate on the Marban Block. It included the lower-grade mineralization near surface but only at Norlartic and Kierens. No surface resources at Marban were included because we didn't have sufficient drilling near surface to put it into a NI 43-101 compliant in-pit-type of resource. So, we only could publish underground resources for Marban. Our resource estimate in 2010 came out to be around 960,000 ounces (Indicated plus Inferred)

The Indicated total was nearly 600,000 ounces of gold. A lot of that was near surface mineralization at Norlartic and First Canadian, the total Inferred was 361,000 ounces. Most of that work was done during 2009, the resource estimate, and the modeling of the deposits etc.

At this point, being a small company with this large land package in the middle of the camp and after putting out this resource estimate, we had all of our neighboring companies showing an interest in taking a look at our data. We signed a few CAs, had about five groups come in and we did technical presentations. Aurizon Mines were the first to offer to do a deal on the property.

The formal option and joint venture agreement was signed on July 5, 2010. We only auctioned off the Marban Block property where the resources were. We kept the rest of our land package out of the deal thinking that that would be our upside, our playing ground for the future. The most important thing for Aurizon was they were trying to establish projects close to

infrastructure that had what they call "ounces of quality." Marban fit the kind of project they were looking for.

Rick: Let's be clear on something here Rock, they did not option this for 960,000 ounces of gold, they did the deal because they firmly believed that there is a lot more to be found.

Rock: Absolutely. You look at the model of the one that we have been working the most on, the Marban deposit. It had seen no systematic drilling at depth. NioGold has shown that the system continues to depth and it's wide open.

So that showed quite a bit of upside. Then there are at least three or four satellite deposits that had not yet been evaluated. So there is still more gold around those deposits that we haven't even looked at yet that could be significant at the end of the day in adding ounces on the property.

Rick: The deal is structured in an interesting way.

Rock: If you look closely at the deal with Aurizon you can see it is a very good deal for NioGold. They have to put \$20 million in the ground over three years, and we're pushing hard that most of that goes directly into drilling to increase the resources.

Once they've spent the \$20 million on the property, within the three year time limit, they have to make a decision to do the resource payment, which would get them a 50% interest in the property. The resource payment is based on an updated resource estimate following the additional drilling we did on the property and the partnerships' drilling, so it includes all the ounces that were defined by NioGold and the ounces added by the \$20 million drill program.

Rick: How does the resource payment breakdown?

Rock: They have to pay for 50% of the ounces in the ground. For all the ounces that are in the Indicated category they have to pay \$40 an ounce. If the price of gold is below \$1560 U.S. an oz they pay \$30 an ounce.

That was based on a 20% premium to what gold was trading at, at the time we signed the deal. As well all the ounces that are in the Inferred category, they have to pay \$20 an ounce if the price of gold is under \$1560 U.S. or \$30 an ounce if it's higher.

When we signed the agreement, the ounces we had in the ground were valued as an \$18 million resource payment. We know that with the first year program, where we just completed and drilled 50,000 meters, we significantly increased the ounces on the property. Remember this is all just to get 50% of the property.

Rick: That \$20 million is mostly going into the ground.

Rock: The definition of the expenditures is relatively broad in the agreement, although both parties agree that most of it needs to go to drilling, but it will include certain technical studies or engineering studies to be able to evaluate the economic potential of the deposits. We will allow Aurizon to put money into that, because at the end of the day, they don't want to spend a full \$20 million and find out that there is nothing economic.

We have to give them a bit of breathing room to do some engineering work so that they're reassured that what we're drilling out has economic value to it.

Rick: That makes a lot of sense, and it's great for NioGold and your shareholders.

Rock: Yes. Look at the last news release we put out. For the first year's program we spent \$6 million. None of that went to any technical work. It was all drilling. For the second year we've just approved a budget of \$5 million. \$460,000 of that will go to some preliminary engineering work that will allow us to publish in-pit resources under an NI 43-101 regulation.

There were some 43-101 regulations that changed recently. Companies can only report in-pit resources if you have done some metallurgical testing, some rock mechanic tests, as well as some baseline environmental studies to quantify the soils that are overlying the deposit, as well as the groundwater flow. So, because of those regulations being a little more stringent on near surface resources that you are able to open pit, you have to do some initial engineering or technical studies to support that if you want to publish NI 43-101 resources.

Rick: So if I've got the numbers correct Rock over two years they're going to put \$11 million into the joint venture, and almost all of it, except \$460,000, is going right into the ground.

Rock: That's right.

Rick: That's pretty damn impressive, and I think it shows a hell of a level of confidence on Aurizon's part.

Rock: Absolutely. The first year program ran from August 2010 to August 2011 and we completed 50,000 meters of drilling. There were 170 holes and eight extensions of previous holes. The bulk of that drilling, about 41,000 meters went into the Marban deposit.

The real highlight of the program, and what brought Aurizon back for a second year, is the discovery and recognition of at least two new zones around the old Marban mine. Both are well within the Marban mineralized system.

Right at surface and especially to the west side of the old mine shaft, where there had been very limited mining development, we recognized some very high-grade structures. The more we drilled, the more we started systematically recognizing them, one of the cuts that we announced about a month ago was 900 grams over 2.9 meters. This is the type of mineralization that we could outline, near surface, to sweeten the lower-grade mineralization that is bordering these higher-grade structures.

What's also interesting is that we recognized mineralization on the north wall of the deposit in another type of rock, granodiorite intrusives in the hanging wall of the deposit. We found some mineralized zones within those that seem to be pretty consistent, so that may be adding more mineralization, more width to the Marban mineralization. We may be able to lower the strip ratio of the near surface mineralization if we decide to go by open pit method there.

Now the second very interesting zone that we found, which would be a big upside to the deposit, is what we call the East Down Dip Extension and it's under the old mine workings. Previous mining on the Marban deposit was very shallow, between 150-250 meters vertical depth, but below that we drilled about half a dozen very good intersections between the 400 meter level and the 500 meter level vertical below the old mine. Some of those cuts were 5-7 grams over 10-12 meter widths. Those widths and grades are very good for mining underground.

We have defined the East Down Dip Extension over a strike length of 300 meters and to a vertical extent of over 200 meters. It's wide open to the east as well as to depth, and to the west. We haven't yet tested if it's got a western extension to it. So those two new discoveries within the Marban mineralized system really got Aurizon thinking that there could be a lot more to this project than past miners believed.

Rick: Committing to a second year was an easy decision for Aurizon to make.

Rock: Right now we know that the Marban mineralized system is extended over 1.4 km in strike length, and within that there's a corridor about 300 meters wide where there are several stacked zones.

We have mineralization of economic interest defined to at least -500 meters vertical depth, and it's still wide open. This thing could be a multi-million ounce system. It just needs a lot more drilling to continue expanding, especially at depth to the east, and we still have hope that the system may open up to the west. We know that around 600 meters west of the shaft, we did some of our fence drilling, and the thing started petering out a bit, the zones were narrower, but we also know these systems can open up again, and so we have to do some more drilling to the west and see if we have a reopening of the gold mineralized system.

Right now the upside is going east and at depth, and as well defining the higher-grade structures near surface. The priorities of the 34,000 meters of drilling that we're putting into Marban right now are basically focusing on that, the near surface mineralization as well as the eastbound dip extension zone.

Rick: NioGold is not a one trick pony. They don't just have the joint venture with Aurizon; NOX has a new discovery on the Malartic Block.

Rock: Yes, that's right. We committed \$2.5 million to step off the Marban Block and explore the ground that is adjacent to it, the Malartic Block. We started drilling in April 2011 and were drilling in the southern portion within the sedimentary formations targeting structures that we had recognized in geophysics. Some of the historic drilling had hit a few gold intersections of interest, so we were getting some information about the structures, as well as the geology.

Some of the drilling is really close to the Osisko open pit, just north of it, less than one km away. The contractor had a bit of logistical problems, and we were slow to get going, but we did manage to discover two major shear zones in the sediments. The Ludovick Zone had some visible gold in it. Its 8-10 meters wide with lots of sulfides, very well sheared sediments with, in some holes, visible gold. We announced one cut on it in where we had 3.6 grams gold over 6.5 meters.

That was a very good starting point but we still had to finish the exploration drilling program and then we returned to the Ludovick Zone to drill a few more confirmation and extension holes. And we hit it again; we should be announcing that in a week or so. We don't have full results on the hole, but it was a nicely mineralized zone, again around eight meters wide with some visible gold in it.

So we have a structure there that we now recognize over 200 meters and if it's continuous may cover the four km strike length of the property. We're at the preliminary stages evaluating this structure. Right now we have pulled the rig out of that area because in fall it gets a little soft in there. We want to return during the winter time when the ground is frozen and we're not creating too much environmental damage.

Rick: This is a 100% owned property, right next door to Osisko's 11 million ounce resource.

Rock: Yes. Right now the drilling on the Malartic Block, our exploration drilling, has shifted to the northern part of the property. We have three drill rigs out there to complete the \$2.5 million program by December. The three rigs in the northern part of the property are actually testing the north-west extent of the gold mineralized structures that host our deposit on the Marban Block. We have a seven km section of the northwest extension of these faults, which we call the Marbanite and Norbenite. They have seen very limited drilling in the past. Right now we have about 9000 meters in drilling that is a first pass kind of fence drilling to locate the fault, and then trying to find sectors of it that are gold mineralized.

Rick: This is a 100% owned property and a possible extension of the Marban deposit.

Rock: That's right. We can see in the geophysics that the faults extend from the Marban onto the Malartic Block. We just have to find a segment of it where it's gold mineralized and then start working from there into potentially economic mineralization.

Rick: It could be one of the more exciting projects you guys are involved in.

Rock: Well we're an exploration company, and pure exploration like that is always the most exciting for sure.

Rick: I agree. How's the treasury?

Rock: NioGold is well funded. We don't really need to go back to the market for the next few years as we have about \$12.5 million in working capital for our own exploration, and of course Aurizon is footing the Marban bill and has a decision regarding the resource payment in two years. So we're well positioned on the financial side.

We're well cashed up, this is important. The markets are very shaky these days. Some analysts say that we may have been through the low point of our market right now, and the markets are bouncing back, but whatever happens at least we're covered, we can continue exploring for a couple years in a down market.

Rick: Touch on area infrastructure and Marban metallurgy for us Rock.

Rock: We expect recoveries to be above 90% range. There is nothing complex about the ore there. It's basically gold associated with pyrite iron sulfides; there are no other metals in the system. There is no arsenic or antimony and very limited silver, other than that it's nearly all gold in pretty simple form. So, we don't see any metallurgical problems on the Marban Block.

Marban is located about 15 km west of the town of Val-d'Or, in an area where there are not many houses or people. It's not a case like Osisko where they are on the edge of a town. As well Marban is very close to all the operating mills in the area. Of course it depends on the size of the deposit, but within a 50 km radius we have seven operating mills in the camp, and there are two brand new milling facilities. One at Agnico-Eagle's Goldex facility just 10 km down the road, as well as just south of us is Osisko's Canadian Malartic mill. Right next door, the Kiena Mine Complex held by Wesdome has a 2000 tonne per day mill, that has very similar ore to us, and it's not running at full capacity now. So on the logistics side, putting Marban into development will not be a huge headache.

Rick: Anything else you'd like to add?

Rock: No, I think I've covered pretty much everything.

Rick: Thank you Rock, it was a pleasure.

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