Research

September 17, 2018

Report #5

Exploration in Québec, Canada



Niobec in Québec is one of only three mines globally that primarily extract niobium, with <u>grades</u> between 0.37% and 0.6% Nb2O5. (<u>Source</u>)

Strong potential for discovery of niobiumtantalum deposit(s) of significance, says independent report filed today

Saville Resources Inc. today <u>announced</u> the filing of an independent NI43-101 Technical Report on the Niobium Claim Group Property in Québec, Canada.

Shareholders and investors alike should take a close look at the "Conclusions and Recommendations" section, which starts as follows:

"The Property is considered to have a strong potential for discovery of carbonatite hosted niobium-tantalum-(phosphate) deposit(s) of significance, as well as for fluorite. The Author considers niobium-tantalum to be of primary interest, with fluorspar (fluorite) and phosphate as secondary commodities." As successful investors in the mining space know by heart, it's the discovery of a deposit which provides the largest upside potential as this phase typically creates most shareholder value.

Although Saville has not done any exploration yet, the company is getting ready to drill – based on 10 years of previous work by Commerce Resources Corp., including drilling of 41 holes. This demonstrates that it's not an early-stage project and that vast upside exists for Saville to unlock for its shareholders; especially when considering that Saville has a current market capitalization of less than \$3 million CAD with a pretty tight share structure of around 47 million shares in the market.

Company Details



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Shares Issued & Outstanding: 47,208,714



∽Chart Canaa

Canadian Symbol (<u>TSX.V</u>): SRE Current Price: \$0.055 CAD (09/14/2018) Market Capitalization: \$3 Million CAD



Chart Germany (<u>Frankfurt</u>)

German Symbol / WKN: SOJ / A2DY3Z Current Price: €0.034 EUR (09/14/2018) Market Capitalization: €2 Million EUR hat makes Saville's project so attractive are not only the high niobium and tantalum grades over significant widths thus far observed, but also the strong potential of fluorspar and phosphate occurrences.

The Trump Administration has deemed niobium, tantalum, and fluorspar critical for economic and national security as the US remains 100% net import reliant on these commodities, which are also included in the new tariff regime.

Phosphate rock ore was mined by only 5 firms in the US last year, processing it into marketable products valued at \$2.1 billion USD for 100% domestic use as intermediate feedstocks in the manufacture of fertilizers and animal feed supplements, according to <u>USGS</u>.

The tantalum market is quite bizarre, however this is not on the demand side but on the supply side. Most of the world's tantalum continues to come from unattractive locations like the Democratic Republic of the Congo

The opportunities in today's niobium market are huge (the market is growing by 8-10% per year), with most niobium going to the manufacture of High Strength Low Alloy (HSLA) steel. This HSLA steel is used in building and bridge construction or to the manufacture of stronger but lighter steel chassis for most cars, whether they are Internal Combustion (IC) engine vehicles or Electric Vehicles (EVs) because of the benefits of increasing fuel economy or extending battery range.

The global niobium market continues to be supplied by only 3 mines, and there have been no new additions brought into production since late 2006 when the market price quadrupled. One of the reasons for this lack of producers, which may not be well known, is that niobium deposits can have metallurgical complications, especially if these are not hosted by a carbonatite which host rock's simple mineralogy enables conventional processing. The 3 primary niobium mines currently in production are all hosted by carbonatite.

Most interestingly, the Saint-Honoré Carbonatite in Québec not only hosts the Niobec Mine but also a large <u>REE</u> <u>Zone</u> of more than 450 million tonnes at a grade of 1.65% TREO. In other words: It was the niobium deposit which went into production first, although the core of the carbonatite consists of REE mineralization. Who sees a striking resemblance with the Eldor Carbonatite?

As a matter of fact, Saville's neighbor Commerce Resources Corp. has historically worked with one of the most respected experts in the world of niobium, Michel Robert, who set up the flow sheet for Niobec and who ran the mine for 4 years before it was bought by IAMGOLD Corp., which later sold the mine to a consortium of Asian investment firms for \$530 million USD in 2014.



Above cross-section (Simandl & Mackay, 2014) of Québec's **Saint-Honoré Carbonatite**, which hosts the Niobec Mine, illustrates that the general geology is similar to the **Eldor Carbonatite**, which hosts the high-tonnage Ashram REE Deposit and the adjoining Niobium Claim Group Property.



According to today's news:

"The Southeast Area is the most advanced prospect on the Property with drill intercepts including **0.82% Nb2O5 over 21.9 m and 1.09% Nb2O5 over 5.8 m** in drill holes EC10-033 and 040, respectively. These strongly mineralized intercepts have yet to be followed-up and, along with Miranna, are high-priority exploration targets for the Company.

The drilling at the Star Trench Area ... has returned some of the strongest tantalum drill intercepts to date on the Property, including **454 ppm Ta2O5 over 7.8 m and 632 ppm Ta2O5 over 3.8 m** in drill hole EC08-025. These drill intercepts, also associated with moderate niobium and strong phosphate mineralization, were returned from relatively shallow depths (<50 m core length) with only limited follow-up drilling completed. This follow-up drilling, completed in 2010, consisted of three (3) drill holes totalling 494 m and returned some of the highest-grade individual core samples collected to date on the Property, including **1.69% Nb2O5**, **2,220 ppm Ta2O5**, and **20.5% P2O5** over **0.3 m** (sample 84321)."

As most of the current niobium exploration, development, and mining projects have resource grades below 1% Nb2O5, Saville aims to delineate a large and high-grade niobium deposit to earn the status of a world-class project.

The author of the Technical Report recommends the following:

"Based on the favourable geologic setting, abundant niobium-tantalum mineralized boulders found on surface, and in historic drill holes, as well as other targets remaining to be fully explored, the Niobium Claim Group Property is considered of sufficient geological merit to warrant further exploration. A twophase exploration approach is proposed. Phase I is recommended to focus on refining drill targets and include geologic modelling of historic drill intercepts, and surface follow-up (e.g. prospecting, trenching, ground geophysics). Phase II is recommended to include diamond drilling (6,000 m) to test new targets, as well as further evaluate and expand known mineralized horizons. Work overall is recommended to focus on the Southeast Area, where the strongest potential has been identified, as well as the Miranna Target. The estimated budget is \$693,000 for Phase I and \$5,132,000 for Phase II, for a combined total budget of \$5,825,000."

In mid-August, Saville closed the first tranche of a non-brokered financing for gross proceeds of \$877,700 CAD. The second tranche has not closed yet and has the same conditions: Flow-through shares for \$0.06 CAD and non-flowthrough shares for \$0.05 CAD; the latter comes with a full warrant exercisable at \$0.10 CAD for a period of 24 months. Saville currently trades at \$0.055 CAD on the TSX Venture Exchange.



As per today's news, Saville is currently in the late stages of planning a fall exploration program, consisting of prospecting and rock sampling, and a ground magnetic survey to further delineate the mineralized horizon. The primary objective of this program is to further refine drill hole locations ahead of drilling planned for the first half of 2019.

Excerpts from the newly filed NI43-101 Technical Report, which is available on <u>SEDAR</u> or <u>here</u> (below accentuation by Rockstone):

"The relatively high niobium-tantalum values are ubiquitous throughout the carbonatite and phoscorite within the Property; however, the higher-grade occurrences of primary interest are interpreted to be present in the outer portions of the Eldor Carbonatite Complex, and have been sampled in the northwestern, eastern, and southeastern portions...

In general, based on current surface, drill hole, and geophysical data, mineralization located in the Southeast Area is interpreted to be <u>up to 1 km in length</u> <u>and occur over several 100 m in width</u>. However, this mineralized occurrence remains poorly delineated with a significant amount of drilling required to better understand continuity, extent, and controls on the mineralization...

Historic exploration of the Niobium Claim Group Property has defined several prospective areas including the **Southeast Area**, the **Northwest Area**, the **Star Trench Area**, and more recently the **Miranna Area**. The Southeast, Northwest, and Star Trench areas have been the subject of drill programs in 2008, and the Southeast and Star Trench areas again in 2010.

The assay data indicate that the **Southeast Area** is host to higher grades of niobium-tantalum over larger widths when compared to other areas on the Property, while also hosting a large number of other targets to follow-up as well as new ones to test. Therefore, the Author considers the Southeast Area to hold the strongest



A total of 41 drill holes, totalling 8,175 m, have been completed on the Niobium Claim Group Property, primarily testing niobium and tantalum targets as developed from historic work (2008, 2010, 2011, and 2015).

potential for hosting a niobiumtantalum deposit of appreciable grade and tonnage on the Property and recommends that this area initially remain the focus of exploration. This is highlighted by the wide intercept starting from 4.22 m depth in EC10-033 (**0.72% Nb2O5 over 21.35 m**), which demonstrates higher-grade mineralization essentially reaches surface. This interval also includes the highest niobium-grade drill core sample collected to date at **1.85% Nb2O5 and** **720 ppm Ta2O5** (over 0.48 m) <u>at 24</u> <u>m depth</u>. The highest-grade niobium intercept to date was also returned from the same area with **1.09% Nb2O5 over 5.84 m** in EC10-040. The Southeast Area also hosts potential for fluorite with several well-mineralized intercepts over ~20 m returned in past drilling...

Significant fluorspar mineralization was also intersected in the Southeast Area, including **14.95% fluorine (~30.7% fluorspar) over 22.29 m**...

The highest-grade niobium [prospecting rock] sample from the Southeast Area returned **1.18% Nb2O5** and **0.036 Ta2O5**, and up to **19.2% P2O5**...

The highest niobium grade from rock samples collected in 2008 in the **Northwest Area** exceeded detection limit at **7.15% Nb2O5**, with the best overall sample returning **5.73% Nb2O5 and 0.456% Ta2O5%** (highest Ta grade of program). Samples **up to 27.6% P2O5** were also collected in the Northwest Area...

Drilling to date at the **Star Trench Area** suggest its size potential may limited; however, the area is also host to the highest grades of tantalum on the Property and requires further ground work ahead of additional drill testing...

The **Miranna Area** exploration is less advanced, being limited to surface prospecting and sampling to date. A well mineralized, northwest-southeast oriented, elongated Ta-Nb mineralized boulder field has been traced for ~1 km. A number of sources for this mineralized train are possible, including a nearby magnetic anomaly (the "Miranna Target"). The Miranna Target is considered a high priority for further work including possible drill testing.

In addition to the Miranna Target, the 2011 prospecting program produced the most highly mineralized sample obtained do date on the Property, as well as the entire Eldor Carbonatite Complex, with an assay of **16.1% Nb2O5 and 0.754% Ta2O5**. The boulder was collected **west of the Northwest Area**, near the Property border, within claim 1007883.

The source of this boulder is difficult to determine as it is relatively isolated in occurrence; however, ice direction suggests a source to the southeast, probably within the complex... The **PANDS Showing** was discovered in 2011, located just south of Glim Lake, on what has since been known as the **PANDS Area**. The area was found to host significant outcrop, which is unusual for the Property.



Nb2O5 - niobium oxide, Ta2O5 - tantalum oxide, P2O5 - phosphate, TREO - total rare earth oxide

A sample collected from outcrop in this area returned **0.41% Nb2O5 and 0.066% Ta2O5**, in addition to a nearby boulder sample, which returned **3.94% Nb2O5 and 0.251% Ta2O5**. The initial interest in the area was for its REE potential, with sample **up to 3.0% REO** collected; however, the Nb-Ta results have not been followed-up...

Historic exploration of the [**Eldor**] **complex** has shown it to have an elliptical shape with approximate dimensions of 7.3 km long by 3 km wide (Sherer, 1984). <u>More recently, Clark and</u> <u>Wares (2006) suggested a carbonatite</u> extent of almost double, at 15 km long by 4 km wide. Deformation at about 1.8 Ga tilted the region and resulted in a regional dip to the northeast for the carbonatite complex...

The target deposit type at the Property is a **Nb-Ta-Phosphate enriched carbonatite ± fluorite**, hosted within certain phases of the Eldor Carbonatite Complex. At Eldor, the mineralized zones of interest are concentrated in the outer parts of the complex and occur in sills and dikes of crosscutting earlier primary carbonatite. These zones have been interpreted on the Property

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to dominantly strike to the northwest and dip moderately to steeply to the northwest.

Through 2008, there have been <u>527</u> <u>documented carbonatites globally</u> (Woolley & Kjarsgaard, 2008), of which, numerous have attained production for a variety of commodities. These include **rare earth elements (REEs), niobium, iron, copper, apatite, and fluorite** (Schulz, K. J.; Piatak, N. M.; Papp, J. F.; 2017).

Moreover, the dominant source of REEs and niobium in the world is from carbonatite deposits. Therefore, **carbonatites** are well-regarded as an excellent target for mineral exploration, especially for niobium, which is of primary interest to the Company...

Global examples of carbonatite hosted niobium deposits include the operating **Niobec Mine** within the Saint-Honoré Carbonatite, Canada, the past producing **St. Lawrence Mine** within the Oka Carbonatite, Canada, and the **Crown Deposit** within the Mount Weld Carbonatite, Australia. The global niobium market is almost entirely supplied by ... carbonatite hosted mines; predominantly the **Araxa Mine** in Brazil, and to a lessor extent the **Niobec Mine** in Canada."

Option Agreement

Saville's Niobium Claim Group Property is under Exploration Earn-in Agreement from Commerce Resources Corp., whereby Saville may earn up to a 75% interest, subject to certain terms and conditions including TSX Venture Exchange Approval. The total land position of the Niobium Claim Group Property includes 26 claims over 1,223 hectares.





Most of the current exploration, development and operating niobium mines have resource grades below 1% Nb2O5, apart from the world's largest and highest grade niobium mine, Araxá in Brazil, with average grades of approximately 2.5% Nb2O5.



Link to updated chart (15 min. delayed): <u>http://schrts.co/Zn8NpA</u>

Disclaimer and Information on Forward Looking Statements:

All statements in this report, other than statements of historical fact should be considered forward-looking statements. Much of this report is comprised of statements of projection. Statements in this report that are forward looking include that Saville Resources Inc. ("Saville") or any other company or market will perform as expected; that exploration has or will discover a mineable deposit; that there is strong potential for discovery of niobium-tantalum deposit(s) of significance; that it's the discovery of a deposit which provides the largest upside potential as this phase typically creates most shareholder value; that Saville is getting ready to drill; that historic drilling of 41 holes demonstrates that vast potential exists for Saville to unlock for its shareholders; that it's not an early-stage project; that most of the current niobium exploration, development, and mining projects have resource grades below 1% Nb2O5; that Saville aims to delineate a large and highgrade niobium deposit to earn the status of a world-class project; that Saville's project is attractive not only because of the high niobium and tantalum grades over significant widths thus far observed, but that there is also strong potential of phosphate and fluorspar occurrences; that the opportunities in the today's niobium market are huge; that niobium deposits can have metallurgical complications, especially if these are not hosted by a carbonatite which host rock's simple mineralogy enables conventional processing; that there is a striking resemblance between the Saint-Honoré Carbonatite / Niobec Mine / REE Zone and the Eldor Carbonatite / Niobium Claim Group / Ashram REE Deposit; that Saville will close the second tranche of the earlier announced private placement financing; that Saville is currently in the late stages of planning a fall exploration program, consisting of prospecting and rock sampling, and a ground magnetic survey to further delineate the mineralized horizon; that the primary objective of the planned program is to further refine drill hole locations ahead of drilling planned for the first half of 2019; that drilling will start in 2019 or at all; that the general geology of the Saint-Honoré Carbonatite is similar to the Eldor Carbonatite; that Saville will earn an interest in the Niobium Claim Group Property under earn-in agreement from Commerce Resources Corp. Such statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in these forward-looking statements. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Risks and uncertainties include: the receipt of all necessary approvals; the ability to find sufficient high grade niobium to mine; uncertainty of future production, capital expenditures and other costs; financing and additional capital requirements for exploration, development and construction of a mine; mineral grade may not be as high as expected; the receipt in a timely fashion of further permitting for its projects; legislative, political, social or economic developments in the jurisdictions in which Saville carries on

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Stephan Bogner studied at the Inter-



national School of Management (Dortmund, Germany), the European Business School (London, UK) and the University of Queensland (Brisbane, Australia).

Under supervision of Prof. Dr. Hans J. Bocker, Stephan completed his diploma thesis ("Gold In A Macroeconomic Context With Special Consideration Of The Price Formation Process") in 2002.

A year later, he marketed and translated into German Ferdinand Lips' bestseller ("Gold Wars"). After working in Dubai for 5 years, he now lives in Switzerland and is the CEO of Elementum International AG specialized in duty-free storage of gold and silver bullion in a high-security vaulting facility within the St. Gotthard Mountain Massif in central Switzerland.

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