



# Lithium Report 2018

Everything you need to know about lithium!



# Disclaimer

Dear reader,

Please read the complete disclaimer in the following pages carefully before you start reading this Swiss Resource Capital Publication. By using this Swiss Resource Capital Publication you agree that you have completely understood the following disclaimer and you agree completely with this disclaimer. If at least one of these point does not agree with you than reading and use of this publication is not allowed.

We point out the following:

Swiss Resource Capital AG and the authors of the Swiss Resource Capital AG directly own and/or indirectly own shares of following Companies which are described in this publication: Advantage Lithium Corp., Durango Resources Inc., First Cobalt Corp., Liberty One Lithium Corp., Millennial Lithium Corp., Nemaska Lithium Inc., Pure Energy Minerals Ltd., Standard Lithium Ltd., Wealth Minerals Ltd.

Swiss Resource Capital AG has closed IR consultant contracts with the following companies which are mentioned in this publication: -.

Swiss Resource Capital AG receives compensation expenses from the following companies mentioned in this publication: Advantage Lithium Corp., Durango Resources Inc., First Cobalt Corp., Liberty One Lithium Corp., Millennial Lithium Corp., Nemaska Lithium Inc., Pure Energy Minerals Ltd., Standard Lithium Ltd., Wealth Minerals Ltd. Therefore, all mentioned companies are sponsors of this publication.

### Risk Disclosure and Liability

Swiss Resource Capital AG is not a securities service provider according to WpHG (Germany) and BörseG (Austria) as well as Art. 620 to 771 obligations law (Switzerland) and is not a finance company according to § 1 Abs. 3 Nr. 6 KWG. All publications of the Swiss Resource Capital AG are explicitly (including all the publications published on the website <http://www.resource-capital.ch> and all sub-websites (like <http://www.resource-capital.ch/de>) and the website <http://www.resource-capital.ch> itself and its sub-websites) neither financial analysis nor are they equal to a professional financial analysis. Instead, all publications of Swiss Resource Capital AG are exclusively for information purposes only and are expressively not trading recommendations regarding the buying or selling of securities. All publications of Swiss Resource Capital AG represent only the opinion of the respective author. They are neither explicitly nor implicitly to be under-

stood as guarantee of a particular price development of the mentioned financial instruments or as a trading invitation. Every investment in securities mentioned in publications of Swiss Resource Capital AG involve risks which could lead to total a loss of the invested capital and - depending on the investment – to further obligations for example additional payment liabilities. In general, purchase and sell orders should always be limited for your own protection.

This applies especially to all second-line-stocks in the small and micro cap sector and especially to exploration and resource companies which are discussed in the publications of Swiss Resource Capital AG and are exclusively suitable for speculative and risk aware investors. But it applies to all other securities as well. Every exchange participant trades at his own risk. The information in the publications of Swiss Resource Capital AG do not replace an on individual needs geared professional investment advice. In spite of careful research, neither the respective author nor Swiss Resource Capital AG will neither guarantee nor assume liability for actuality, correctness, mistakes, accuracy, completeness, adequacy or quality of the presented information. For pecuniary losses resulting from investments in securities for which information was available in all publications of Swiss Resource Capital AG liability will be assumed neither by Swiss Capital Resource AG nor by the respective author neither explicitly nor implicitly.

Any investment in securities involves risks. Political, economical or other changes can lead to significant stock price losses and in the worst case to a total loss of the invested capital and - depending on the investment – to further obligations for example additional payment liabilities. Especially investments in (foreign) second-line-stocks, in the small and micro cap sector, and especially in the exploration and resource companies are all, in general, associated with an outstandingly high risk. This market segment is characterized by a high volatility and harbours danger of a total loss of the invested capital and - depending on the investment – to further obligations for example additional payment liabilities. As well, small and micro caps are often very illiquid and every order should be strictly limited and, due to an often better pricing at the respective domestic exchange, should be traded there. An investment in securities with low liquidity and small market cap is extremely speculative as well as a high risk and can lead to, in the worst case, a total loss of the invested capital and - depending on the investment – to further obligations for example additional payment liabilities. Engagements in the publications of the shares and products presented in all publications of Swiss Resource Capital AG have in part foreign exchange risks. The deposit portion of single

shares of small and micro cap companies and low capitalized securities like derivatives and leveraged products should only be as high that, in case of a possible total loss, the deposit will only marginally lose in value.

All publications of Swiss Resource Capital AG are exclusively for information purposes only. All information and data in all publications of Swiss Resource Capital AG are obtained from sources which are deemed reliable and trustworthy by Swiss Resource Capital AG and the respective authors at the time of preparation. Swiss Resource Capital AG and all Swiss Resource Capital AG employed or engaged persons have worked for the preparation of all of the published contents with the greatest possible diligence to guarantee that the used and underlying data as well as facts are complete and accurate and the used estimates and made forecasts are realistic. Therefore, liability is categorically precluded for pecuniary losses which could potentially result from use of the information for one's own investment decision.

All information published in publications of Swiss Resource Capital AG reflects the opinion of the respective author or third parties at the time of preparation of the publication. Neither Swiss Resource Capital AG nor the respective authors can be held responsible for any resulting pecuniary losses. All information is subject to change. Swiss Resource Capital AG as well as the respective authors assures that only sources which are deemed reliable and trustworthy by Swiss Resource Capital AG and the respective authors at the time of preparation are used. Although the assessments and statements in all publications of Swiss Resource Capital AG were prepared with due diligence, neither Swiss Resource Capital AG nor the respective authors take any responsibility or liability for the actuality, correctness, mistakes, accuracy, completeness, adequacy or quality of the presented facts or for omissions or incorrect information. The same shall apply for all presentations, numbers, designs and assessments expressed in interviews and videos.

Swiss Resource Capital AG and the respective authors are not obliged to update information in publications. Swiss Resource Capital AG and the respective authors explicitly point out that changes in the used and underlying data, facts, as well as in the estimates could have an impact on the forecasted share price development or the overall estimate of the discussed security. The statements and opinions of Swiss Capital Resource AG as well as the respective author are not recommendations to buy or sell a security.

Neither by subscription nor by use of any publication of Swiss Resource Capital AG or by expressed recommendations or reproduced opinions in such a publication will result

in an investment advice contract or investment brokerage contract between Swiss Resource Capital AG or the respective author and the subscriber of this publication.

Investments in securities with low liquidity and small market cap are extremely speculative as well as a high risk. Due to the speculative nature of the presented companies their securities or other financial products it is quite possible that investments can lead to a capital reduction or to a total loss and - depending on the investment – to further obligations for example additional payment liabilities. Any investment in warrants, leveraged certificates or other financial products bears an extremely high risk. Due to political, economical or other changes significant stock price losses can arise and in the worst case a total loss of the invested capital and - depending on the investment – to further obligations for example additional payment liabilities. Any liability claim for foreign share recommendations, derivatives and fund recommendations are in principle ruled out by Swiss Resource Capital AG and the respective authors. Between the readers as well as the subscribers and the authors as well as Swiss Resource Capital AG no consultancy agreement is closed by subscription of a publication of Swiss Resource Capital AG because all information contained in such a publication refer to the respective company but not to the investment decision. Publications of Swiss Resource Capital AG are neither, direct or indirect an offer to buy or for the sale of the discussed security (securities), nor an invitation for the purchase or sale of securities in general. An investment decision regarding any security should not be based on any publication of Swiss Resource Capital AG.

Publications of Swiss Resource Capital AG must not, either in whole or in part be used as a base for a binding contract of all kinds or used as reliable in such a context. Swiss Resource Capital AG is not responsible for consequences especially losses, which arise or could arise by the use or the failure of the application of the views and conclusions in the publications. Swiss Resource Capital AG and the respective authors do not guarantee that the expected profits or mentioned share prices will be achieved.

The reader is strongly encouraged to examine all assertions him/herself. An investment, presented by Swiss Resource Capital AG and the respective authors in partly very speculative shares and financial products should not be made without reading the most current balance sheets as well as assets and liabilities reports of the companies at the Securities and Exchange Commission (SEC) under [www.sec.gov](http://www.sec.gov) or other regulatory authorities or carrying out other company evaluations. Neither Swiss Resource Capital AG nor the respective au-

thors will guarantee that the expected profits or mentioned share prices will be achieved. Neither Swiss Resource Capital AG nor the respective authors are professional investment or financial advisors. The reader should take advice (e. g. from the principle bank or a trusted advisor) before any investment decision. To reduce risk investors should largely diversify their investments.

In addition, Swiss Resource Capital AG welcomes and supports the journalistic principles of conduct and recommendations of the German press council for the economic and financial market reporting and within the scope of its responsibility will look out that these principles and recommendations are respected by employees, authors and editors.

### Forward-looking Information

Information and statements in all publications of Swiss Resource Capital AG especially in (translated) press releases that are not historical facts are forward-looking information within the meaning of applicable securities laws. They contain risks and uncertainties but not limited to current expectations of the company concerned, the stock concerned or the respective security as well as intentions, plans and opinions. Forward-looking information can often contain words like “expect”, “believe”, “assume”, “goal”, “plan”, “objective”, “intent”, “estimate”, “can”, “should”, “may” and “will” or the negative forms of these expressions or similar words suggesting future events or expectations, ideas, plans, objectives, intentions or statements of future events or performances. Examples for forward-looking information in all publications of Swiss Resource Capital AG include: production guidelines, estimates of future/targeted production rates as well as plans and timing regarding further exploration, drill and development activities. This forward-looking information is based in part on assumption and factors that can change or turn out to be incorrect and therefore may cause actual results, performances or successes to differ materially from those stated or postulated in such forward-looking statements. Such factors and assumption include but are not limited to: failure of preparation of resource and reserve estimates, grade, ore recovery that differs from the estimates, the success of future exploration and drill programs, the reliability of the drill, sample and analytical data, the assumptions regarding the accuracy of the representativeness of the mineralization, the success of the planned metallurgical test work, the significant deviation of capital and operating costs from the estimates, failure to receive necessary government approval and environmental permits or other project permits, changes of foreign exchange rates, fluctuations of commodity prices, delays by project developments and other factors.

Potential shareholders and prospective investors should be aware that these statements are subject to known and unknown risks, uncertainties and other factors that could cause actual events to differ materially from those indicated in the forward-looking statements. Such factors include but are not limited to the following: risks regarding the inaccuracy of the mineral reserve and mineral resource estimates, fluctuations of the gold price, risks and dangers in connection with mineral exploration, development and mining, risks regarding the creditworthiness or the financial situation of the supplier, the refineries and other parties that are doing business with the company; the insufficient insurance coverage or the failure to receive insurance coverage to cover these risks and dangers, the relationship with employees; relationships with and the demands from the local communities and the indigenous population; political risks; the availability and rising costs in connection with the mining contributions and workforce; the speculative nature of mineral exploration and development including risks of receiving and maintaining the necessary licences and permits, the decreasing quantities and grades of mineral reserves during mining; the global financial situation, current results of the current exploration activities, changes in the final results of the economic assessments and changes of the project parameter to include unexpected economic factors and other factors, risks of increased capital and operating costs, environmental, security and authority risks, expropriation, the tenure of the company to properties including their ownership, increase in competition in the mining industry for properties, equipment, qualified personal and its costs, risks regarding the uncertainty of the timing of events including the increase of the targeted production rates and fluctuations in foreign exchange rates. The shareholders are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties both general and specific that contribute to the possibility that the predictions, forecasts, projections and various future events will not occur. Neither Swiss Resource Capital AG nor the referred to company, referred to stock or referred to security undertake no obligation to update publicly otherwise revise any forward-looking information whether as a result of new information, future events or other such factors which affect this information, except as required by law.

### 48f Abs. 5 BörseG (Austria) and Art. 620 to 771 obligations law (Switzerland)

Swiss Resource Capital AG as well as the respective authors of all publications of Swiss Resource Capital AG could have been hired



and compensated by the respective company or related third party for the preparation, the electronic distribution and publication of the respective publication and for other services. Therefore the possibility exists for a conflict of interests.

At any time Swiss Resource Capital AG as well as the respective authors of all publications of Swiss Resource Capital AG could hold long and short positions in the described securities and options, futures and other derivatives based on theses securities. Furthermore Swiss Resource Capital AG as well as the respective authors of all publications of Swiss Resource Capital AG reserve the right to buy or sell at any time presented securities and options, futures and other derivatives based on theses securities. Therefore the possibility exists for a conflict of interests.

Single statements to financial instruments made by publications of Swiss Resource Capital AG and the respective authors within the scope of the respective offered charts are not trading recommendations and are not equivalent to a financial analysis.

A disclosure of the security holdings of Swiss Resource Capital AG as well as the respective authors and/or compensations of Swiss Resource Capital AG as well as the respective authors by the company or third parties related to the respective publication will be properly declared in the publication or in the appendix.

The share prices of the discussed financial instruments in the respective publications are, if not clarified, the closing prices of the preceding trading day or more recent prices before the respective publication.

It cannot be ruled out that the interviews and estimates published in all publications of Swiss Resource Capital AG were commissioned and paid for by the respective company or related third parties. Swiss Resource Capital AG as well as the respective authors are receiving from the discussed companies and related third parties directly or indirectly expense allowances for the preparation and the electronic distribution of the publication as well as for other services.

**Exploitation and distribution rights**

Publications of Swiss Resource Capital AG may neither directly or indirectly be transmitted to Great Britain, Japan, USA or Canada or to an US citizen or a person with place of residence in the USA, Japan, Canada or Great Britain nor brought or distributed in their territory. The publications and their contained information can only be distributed or published

in such states where it is legal by applicable law. US citizens are subject to regulation S of the U.S. Securities Act of 1933 and cannot have access. In Great Britain the publications can only be accessible to a person who in terms of the Financial Services Act 1986 is authorized or exempt. If these restrictions are not respected this can be perceived as a violation against the respective state laws of the mentioned countries and possibly of non mentioned countries. Possible resulting legal and liability claims shall be incumbent upon that person, but not Swiss Resource Capital, who has published the publications of Swiss Resource Capital AG in the mentioned countries and regions or has made available the publications of Swiss Resource Capital AG to persons from these countries and regions.

The use of any publication of Swiss Resource Capital AG is intended for private use only. Swiss Resource Capital AG shall be notified in advance or asked for permission if the publications will be used professionally which will be charged.

All information from third parties especially the estimates provided by external user does not reflect the opinion of Swiss Resource Capital AG. Consequently, Swiss Resource Capital AG does not guarantee the actuality, correctness, mistakes, accuracy, completeness, adequacy or quality of the information.

**Note to symmetrical information and opinion generation**

Swiss Resource Capital AG can not rule out that other market letters, media or research companies are discussing concurrently the shares, companies and financial products which are presented in all publications of Swiss Resource Capital AG. This can lead to symmetrical information and opinion generation during that time period.

**No guarantee for share price forecasts**

In all critical diligence regarding the compilation and review of the sources used by Swiss Resource Capital AG like SEC Filings, official company news or interview statements of the respective management neither Swiss Resource Capital AG nor the respective authors can guarantee the correctness, accuracy and completeness of the facts presented in the sources. Neither Swiss Resource Capital AG nor the respective authors will guarantee or be liable for that all assumed share price and profit developments of the respective companies and financial products respectively in all publications of Swiss Resource Capital AG will be achieved.

**No guarantee for share price data**

No guarantee is given for the accuracy of charts and data to the commodity, currency and stock markets presented in all publications of Swiss Resource Capital AG.

**Copyright**

The copyrights of the single articles are with the respective author. Reprint and/or commercial dissemination and the entry in commercial databases is only permitted with the explicit approval of the respective author or Swiss Resource Capital AG.

All contents published by Swiss Resource Capital AG or under <http://www.resource-capital.ch> – website and relevant sub-websites or within <http://www.resource-capital.ch> – newsletters and by Swiss Resource Capital AG in other media (e.g. Twitter, Facebook, RSS-Feed) are subject to German, Austrian and Swiss copyright and ancillary copyright. Any use which is not approved by German, Austrian and Swiss copyright and ancillary copyright needs first the written consent of the provider or the respective rights owner. This applies especially for reproduction, processing, translation, saving, processing and reproduction of contents in databases or other electronic media or systems. Contents and rights of third parties are marked as such. The unauthorised reproduction or dissemination of single contents and complete pages is not permitted and punishable. Only copies and downloads for personal, private and non commercial use is permitted.

Links to the website of the provider are always welcome and don't need the approval from the website provider. The presentation of this website in external frames is permitted with authorization only. In case of an infringement regarding copyrights Swiss Resource Capital AG will initiate criminal procedure.

**Notes from Bundesanstalt für Finanzdienstleistungsaufsicht (Federal Financial Supervisory Authority)**

You will find in brochures of BaFin (see links) additional notes that should contribute to protect against dubious offers: Investment – how to recognize dubious sellers: [http://www.bafin.de/SharedDocs/Downloads/DE/Broschuere/dl\\_b\\_geldanlage.pdf?\\_\\_blob=publicationFile](http://www.bafin.de/SharedDocs/Downloads/DE/Broschuere/dl_b_geldanlage.pdf?__blob=publicationFile) Security transactions – what to watch out for as an investor: [https://www.bafin.de/SharedDocs/Downloads/DE/Broschuere/dl\\_b\\_wertpapiergeschaeft.pdf?\\_\\_blob=publicationFile](https://www.bafin.de/SharedDocs/Downloads/DE/Broschuere/dl_b_wertpapiergeschaeft.pdf?__blob=publicationFile)

Further legal texts of BaFin: [http://www.bafin.de/DE/DatenDokumente/Dokumentlisten/ListeGesetze/liste\\_gesetze\\_node.html](http://www.bafin.de/DE/DatenDokumente/Dokumentlisten/ListeGesetze/liste_gesetze_node.html)

**Liability limitation for links**

The <http://www.resource-capital.ch> – website and all sub-websites and the <http://www.resource-capital.ch> – newsletter and all publications of Swiss Resource Capital AG contain links to websites of third parties (“external links”). These websites are subject to liability of the respective operator. Swiss Resource Capital AG has reviewed the foreign contents at the initial linking with the external links if any statutory violations were present. At that time no statutory violations were evident. Swiss Resource capital AG has no influence on the current and future design and the contents of the linked websites. The placement of external links does not mean that Swiss Resource Capital AG takes ownership of the contents behind the reference or the link. A constant control of these links is not reasonable for Swiss Resource Capital AG without concrete indication of statutory violations. In case of known statutory violations such links will be immediately deleted from the websites of Swiss Resource Capital AG. If you encounter a website of which the content violates applicable law (in any manner) or the content (topics) insults or discriminates individuals or groups of individuals, please contact us immediately.

In its judgement of May 12th, 1998 the Landgericht (district court) Hamburg has ruled that by placing a link one is responsible for the contents of the linked websites. This can only be prevented by explicit dissociation of this content. For all links on the homepage <http://www.resource-capital.ch> and its sub-websites and in all publications of Swiss Resource Capital AG applies: Swiss Resource Capital AG is dissociating itself explicitly from all contents of all linked websites on <http://www.resource-capital.ch> – website and its sub-websites and in the <http://www.resource-capital.ch> – newsletter as well as all publications of Swiss Resource Capital AG and will not take ownership of these contents.”

**Liability limitation for contents of this website**

The contents of the website <http://www.resource-capital.ch> and its sub-websites are compiled with utmost diligence. Swiss Resource Capital AG however does not guarantee the accuracy, completeness and actuality of the provided contents. The use of the contents of website <http://www.resource-capital.ch> and its sub-websites is at the user's risk. Specially marked articles reflect the opinion of

the respective author but not always the opinion of Swiss Resource Capital AG.

**Liability limitation for availability of website**

Swiss Resource Capital AG will endeavour to offer the service as uninterrupted as possible. Even with due care downtimes can not be excluded. Swiss Resource Capital AG reserves the right to change or discontinue its service any time.

**Liability limitation for advertisements**

The respective author and the advertiser are exclusively responsible for the content of advertisements in <http://www.resource-capital.ch> – website and its sub-websites or in the <http://www.resource-capital.ch> – newsletter as well as in all publications of Swiss Resource Capital AG and also for the content of the advertised website and the advertised products and services. The presentation of the advertisement does not constitute the acceptance by Swiss Resource Capital AG.

**No contractual relationship**

Use of the website <http://www.resource-capital.ch> and its sub-websites and <http://www.resource-capital.ch> – newsletter as well as in all publications of Swiss Resource Capital AG no contractual relationship is entered between the user and Swiss Resource Capital AG. In this respect there are no contractual or quasi-contractual claims against Swiss Resource Capital AG.

**Protection of personal data**

The personalized data (e.g. mail address of contact) will only be used by Swiss Resource Capital AG or from the respective company for news and information transmission in general or used for the respective company.

**Data protection**

If within the internet there exists the possibility for entry of personal or business data (email addresses, names, addresses), this data will be disclosed only if the user explicitly volunteers. The use and payment for all offered services is permitted – if technical possible and reasonable – without disclosure of these data or by entry of anonymized data or pseudonyms. Swiss Resource Capital AG points out that the data transmission in the internet (e.g. communication by email) can have security breaches. A complete data protection from unauthorized third party access is not possible.

Accordingly no liability is assumed for the unintentional transmission of data. The use of contact data like postal addresses, telephone and fax numbers as well as email addresses published in the imprint or similar information by third parties for transmission of not explicitly requested information is not permitted. Legal action against the senders of spam mails are expressly reserved by infringement of this prohibition.

By registering in <http://www.resource-capital.ch> – website and its sub-websites or in the <http://www.resource-capital.ch> – newsletter you give us permission to contact you by email. Swiss Resource Capital AG receives and stores automatically via server logs information from your browser including cookie information, IP address and the accessed websites. Reading and accepting our terms of use and privacy statement are a prerequisite for permission to read, use and interact with our website(s).

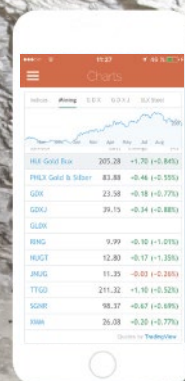
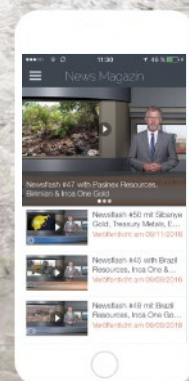




# Commodity-TV

## The whole world of commodities in one App!

Download  
our unique App  
for free!



Watch Management & Expert Interviews, Site-Visit-Videos,  
News Shows and receive top and up to date  
Mining Information on your mobile device worldwide!

### Amazing features:

- Company Facts
- Global Mining News
- Push Notifications
- Commodity-TV, Rohstoff-TV and Dukascopy-TV
- Live Charts
- JRB-Rohstoffblog



powered by:

## Tables of Contents

Disclaimer	02
Table of Contents   Imprint	07
Preface	09
Lithium – the most important substance of the 21 <sup>st</sup> century is just gaining momentum!	10
Interview with Tobias Tretter, Manager of Structured Solutions Lithium Index Strategic Fund	19
<b>Company profiles</b>	
Advantage Lithium Corp.	24
Durango Resources Inc.	29
Liberty One Lithium Corp.	33
Millennial Lithium Corp.	39
Nemaska Lithium Inc.	44
Pure Energy Minerals Ltd.	48
Standard Lithium Ltd.	54
Wealth Minerals Ltd.	59
First Cobalt Corp.	64

## Imprint

Editor  
Swiss Resource Capital AG  
Poststr. 1  
9100 Herisau, Schweiz  
Tel : +41 71 354 8501  
Fax : +41 71 560 4271  
info@resource-capital.ch  
www.resource-capital.ch

Editorial staff  
Jochen Staiger  
Tim Rödel

Layout/Design  
Frauke Deutsch

All rights reserved. Reprinting material  
by copying in electronic form is not  
permitted.

Editorial Deadline 09/10/2017

cover photo: © shutterstock / Zapp2Photo  
page 11: Artwork studio BKK/shutterstock .com  
page 18: Scharfsinn/shutterstock.com  
page 38: canstockphoto  
All images and graphics are, unless otherwise  
stated, by the companies.  
Back, photo 1: canstockphoto, photo 2: pixabay,  
photo 3: shutterstock, photo 4: fotolia

Date of Charts: 10/27/2017





**Commodity-TV and Rohstoff-TV get  
your company the awareness it deserves!**



## Preface

Dear reader,

It is with great pleasure that we are entering the second year of our Lithium Special Report. Swiss Resource Capital AG has made it its business to topically and comprehensively inform precious metals and commodity investors, interested parties and the individual who wants to become an investor in various commodities and mining companies. On our website [www.resource-capital.ch](http://www.resource-capital.ch) you will find 20 companies and information as well as articles about the topic commodities.

A year ago, we started our series of special reports with lithium because we consider this metal to be one of the great future metals in the energy sector and, in spite of the already happened boom, see big chances and potentials in the short term. The battery development is only at the beginning of a long road and the electric automobile has to capture its place among consumers and in the automobile history. Lithium is the main component of all available large-scale production batteries and accumulators and therefore the crucial link in the electro mobility dream. The necessary charging infrastructure is pushed along and expanded in Germany which might accelerate the future trend.

The annual Paris car show was dedicated to the electro mobility in the past years and the 2018 shows in Geneva as well as Tokyo should not be different. The issue of the short range should resolve itself with new accumulator technologies within the coming three to five years. This will drastically increase the demand for electric cars. According to experts the demand increase will be based on the formula "500+200" meaning 500 km range plus 200 km reserve. Then, it is believed, the die-hard driver of combustion engines will switch to electric cars. Daimler-Benz is already working on a bus for

clean local public transport with a range of over 300 km. Volkswagen wants to invest around € 10 billion in the electro mobility during the next five years and starting 2025 sell more than one million electric cars per year.

All this will be an enormous drive for the lithium demand and in the interview with Tobias Tretter you will read how and in which directions the developments advance. Commodities are the base of our economic activities. Without commodities there are no technical innovations and no products that can be manufactured with new materials.

With our special reports we would like to give you the necessary insights and inform you comprehensively.

In addition, our two Commodity IPTV channels [www.Commodity-TV.net](http://www.Commodity-TV.net) & [www.Rohstoff-TV.net](http://www.Rohstoff-TV.net) are available to you free of charge. For on the go we recommend our new Commodity-TV App for iPhone or Android which also provides real-time charts, share prices and the latest videos.

My team and I hope you will enjoy reading this Special Lithium Report and hope that we can provide you with new information, impressions and ideas. Only the one who gets broadly informed and takes matters relating to investments in his own hand will be in the winners and preserve his wealth during these difficult times.

Yours Jochen Staiger



Jochen Staiger is founder and CEO of Swiss Resource Capital AG, located in Herisau, Switzerland. As chief-editor and founder of the first two resource IP-TV-channels Commodity-TV and its German counterpart Rohstoff-TV, he reports about companies, experts, fund managers and various themes around the international mining business and the correspondent metals.



Tim Roedel is chief-editorial- and chief-communications-manager at SRC AG. He has been active in the commodity sector since 2007 and held several editor- and chief-editor-positions, e.g. at the publications Rohstoff-Spiegel, Rohstoff-Woche, Rohstoffraketen, Wahrer Wohlstand and First Mover. He owns an enormous commodity expertise and a wide-spread network within the whole resource sector.



# Lithium – the most important substance of the 21<sup>st</sup> century is just gaining momentum!

## Carbon was the past – Lithium is the future

Rarely was a chemical element of similar great importance as lithium will be in the coming decades. Since the announcement of Tesla Motors' plans to build up to 500,000 electric vehicles per year in its mega-factory starting 2017, lithium, in connection with lithium-ion batteries, is on everyone's lips. The metal in its future significance is comparable only with carbon that is not only important in daily life in the form of plastics but also as energy source in form of coal and crude oil. Whereas carbon above all is an energy supplier and energy source, lithium will become more and more the energy storage medium of the future.

## What is lithium?

Lithium is a light metal belonging to the alkali metal group. It is the least dense of all known solid elements. It has half the weight of water, is silver-gray and relatively soft. Lithium is highly reactive and therefore found in nature only as a lithium compound. Contact with air tarnishes the surface due to the formation of lithium oxide and lithium nitride. In pure oxygen lithium combusts at 1800 Celsius with a bright red flame forming lithium oxide. Lithium reacts with water violently forming lithium hydroxide.

The global lithium extraction is divided in several branches producing the following types of lithium compounds:

1. Lithium carbonate
2. Lithium hydroxide
3. Lithium chloride
4. Butyl lithium and
5. Lithium metal

Usually metallic lithium is produced in a multi-stage process starting from lithium carbonate, and is traded mostly with a purity of 99.5 %. The metallic lithium is used as a catalyst in the chemical and pharmaceutical industry as well as in the production of aluminum lithium alloys.

The industry distinguishes three basic types or qualities of lithium compounds:

1. "Industrial grade", with a purity of over 96 % for glass, fluxing agent and lubricant;
2. "Technical grade", with a purity around 99.5 % for ceramics, lubricants and batteries; and
3. "Battery grade", with a purity of over 99.5 % especially for high end battery cathode materials.

## Main application area: batteries and accumulators

The above mentioned specific and versatile properties make lithium a sought-after material used in many application areas. It is not a surprise that the main application area of lithium was constantly changing in the past. Initially it was used primarily in medicine and in the 1950's the element became commercially successful as an alloy component. Due to its low weight and the positive properties regarding to tensile strength, hardness and elasticity lithium became an inherent part of the aerospace technique. During the past 20 years the situation changed. In the course of the beginning of the electro revolution it was recognized that due to the low standard electrode potential of lithium the metal is almost perfectly suited as the anode in batteries. Lithium batteries are characterized by a very high energy density and can generate a very high voltage, but they are not rechargeable. This property is found in lithium-ion accumulators

where lithium metal oxides, like lithium cobalt oxide, are used as cathode material. For the production of accumulators and batteries purity grades above 99.5 % are needed. Industrial grade lithium hydroxide is used, among other things, as raw material for lubricants as well as coolants and technical grade lithium hydroxide is used in the production of accumulators and batteries. Lithium carbonate – crystalline, granulated or as powder – for example is used for the electrolytic production of aluminum, in the ceramic and pharmaceutical industry as well as in the alloy technique. For the production of lithium-ion-accumulators, lithium carbonate with a specific purity is used in the form of a very fine powder (battery grade powder). The extraction and processing of (especially high grade) lithium is considered to be very expensive.

## Lithium-ion accumulators are considered the non-plus-ultra

Currently research is conducted and works done globally on increasing the power of accumulators for electric cars. In the meantime, it has become evident that the lithium-ion accumulator is a clear favorite. One reason among others is that inside a lithium-ion accumulator the voltage is generated through the exchan-

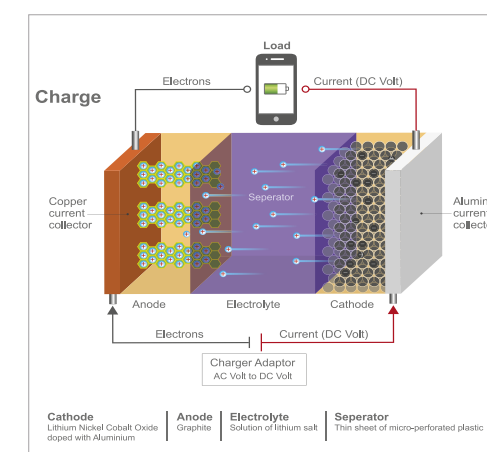
ge of lithium ions. Due to the high energy density lithium-ion accumulators deliver – in contrast to conventional mercury or nickel based batteries – a constant performance throughout the discharge period and not subjected to any memory effect - that is, the gradual capacity loss throughout their service life due to many partial discharges. Therefore lithium-ion accumulators have a clear advantage over conventional nickel-cadmium accumulators.

## The production requires large quantities of lithium

The "disadvantage": the production of lithium-ion accumulators requires large quantities of lithium. Every smartphone contains 5 to 7 grams LCE (Lithium Carbonate Equivalent). In a notebook or tablet there are 20 to 40 grams. Power tools like electric screwdrivers or electric saws need 40 to 60 grams for their accumulators. A storage unit with a capacity of 10KWh for domestic use contains around 23 kg LCE and the accumulators for electric cars contain 40 to 80 kg. A power storage unit with a capacity of 650MWh contains 1.5 tons of LCE. Billions of smartphones and the high millions of notebooks, power tools, cars, e-bikes etc. adds up to a demand of several 100,000 tons of LCE per year.

## Application in the area of regenerative energies

The application of lithium in lithium-ion batteries or accumulators in car manufacturing is only one of many possible uses. Corresponding energy storage systems will be increasingly used for the storage of electricity derived from alternative energy sources. The phenomenal expansion of the power generation in wind farms or solar cells is a giant advan-





tage for the environment but an enormous challenge for the power grids. The reason for this is the extreme fluctuations during power generation by regenerative energy sources. When the wind blows or the sun shines large quantities of electric energy are “pumped” into the grid in a very short time creating enormous short lived overcapacities that are not used. According to calculations of the German Federal Association of Wind Energy 20 percent of the annual return of a wind farm is lost due to turbine shutdown during power grid overload.

### The biggest future field of application for lithium-ion accumulators: Decentralized Energy Storage

Smart-Grid-Systems should prevent a power grid overload but need a large number of short and middle term energy storage systems to store the surplus energy and feed it into the grid when there is a lack of wind and solar power. Lithium-ion accumulators could be the solution to this problem by buffering the surplus energy and feeding it into the grid on demand. Many producers already build efficient lithium-ion accumulators that will be used decentralized in a family home with a photovoltaic system on the roof. An example is the Tesla Powerwall, a solar battery for private homes which is produced in the Tesla mega-factory in Nevada, USA, since October 2015. The electric energy storage system consists of accumulators, charge control and a liquid cooling system. It is possible for private customers to connect up to 9 batteries to reach a total capacity of 57.6 kWh. With this, Tesla got the ball rolling and by doing so is making the decentralized energy storage cheaper as well as efficient and this area to be the most important driver for the lithium market.

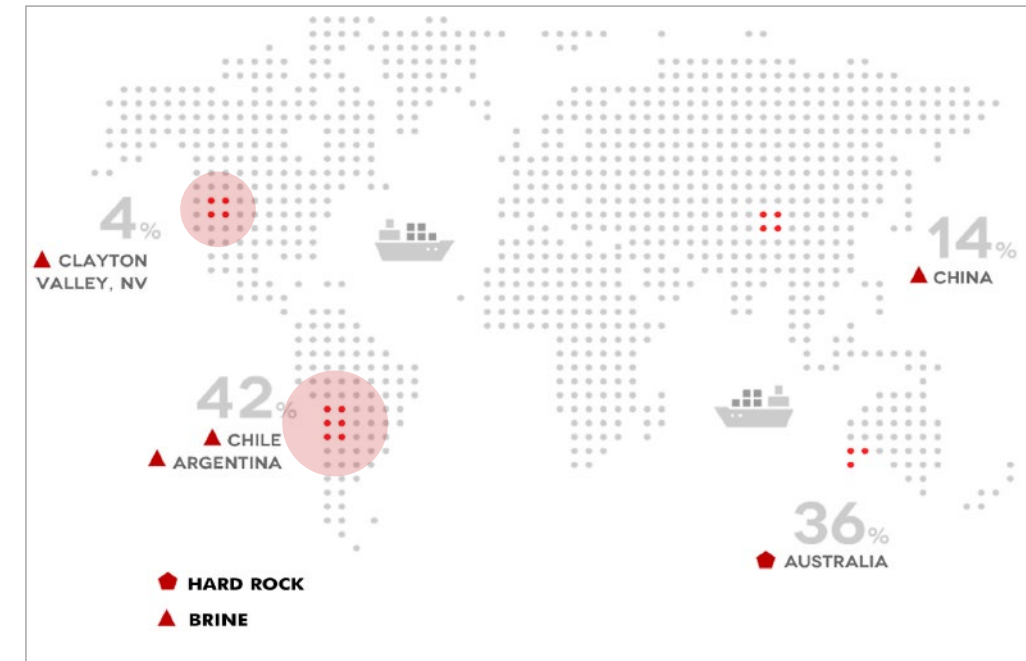
## Supply Situation

### Two types of lithium deposits

In general lithium is derived from two different sources.

1. Brine deposits: Lithium carbonate is primarily derived by evaporating the lithium bearing brines with addition of sodium carbonate in salt lakes. For the production of metallic lithium, the lithium carbonate is dissolved in hydrochloric acid which produces carbon dioxide that escapes as gas and lithium chloride in solution. This solution is reduced in the vacuum evaporator until crystallization of the lithium chloride.
2. “Hard rock spodumene” deposits: in this case the lithium compounds are not derived from the salt of salt lakes but from spodumene, a lithium bearing aluminum silicate mineral. The spodumene is mined using conventional techniques and processed to a concentrate that is often transformed to lithium carbonate with a purity of more than 99.5 %. The necessary intensive thermal and hydrometallurgical processes are considered as very expensive. This type of deposit is almost exclusively mined in Australia and the processing takes place primarily in Chinese facilities.

Recently more and more exploration and development companies count on a third source of lithium; the possibility to extract lithium from old exploited oil reservoirs. The lithium is extracted from wastewater remaining in the reservoir. The viability of this process was proven several times. In addition, this unusual lithium production is economically feasible. Thereby brine containing (former) oil fields become the focus of the lithium industry.



Currently, around 80 % of the total lithium production worldwide originates in four countries. (Source: USGS Mineral Commodity Summaries / Lithium X)

### Lithium is abundant

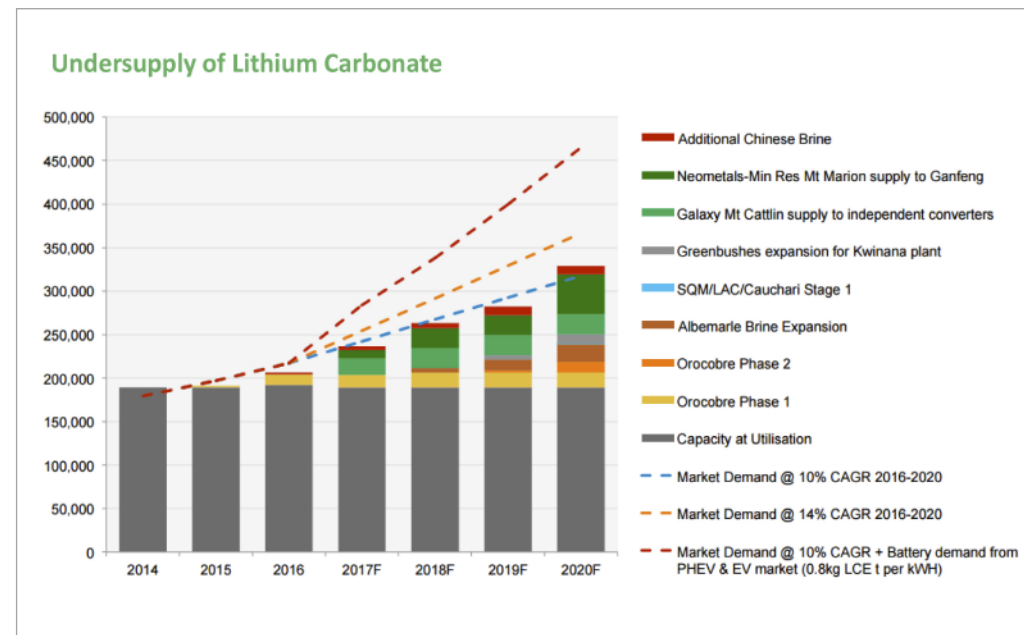
In the past it was wrongly assumed that a global switch from conventional combustion engines to electric motors is impossible due to lack of lithium. That is not quite right. Lithium is not that rare in the earth, accounting for approximately 0.006 % of the earth's crust, therefore rarer than zinc, copper and tungsten but a bit more common than cobalt, tin and lead. According to estimates of the US Geological Survey, there are 40 million tons of lithium mineable globally, 65 % of that alone in the South American countries of Bolivia, Chile and Argentina. Currently the biggest lithium carbonate production takes place in the Salar de Atacama, a salt lake in the northern Chilean province of Antofagasta. Approximately 40 % of the global lithium production originates in this region.

### Currently Lithium production is focused primarily in four countries and by four companies

Currently, around 80 % of the total lithium production worldwide originates in these three South American countries plus Australia and production is split between four companies. As a result, the whole lithium market is lacking transparency. This is the reason the big battery and accumulator producers like Panasonic and the leading electric car manufacturers, above all Tesla Motors, are looking for long-term supply contracts with relatively small development companies that in part are not producing before 2020. As a result of this supply oligopoly, lithium is currently not traded in the market and the actual trading prices are strictly confidential. One reason often mentioned by the supplier is that the available and produced lithium qualities are too different for a standardized market place.



From 2017 on, the lithium market went into a supply deficit.  
Source: Orocobre, Advantage Lithium



## Lithium production will increase sharply

In 2015 the global lithium production (for standardization reasons LCE = "lithium carbonate equivalent" a universal conversion factor for all above mentioned lithium compounds) was approximately 175,000 tons LCE. According to projections, this number will increase to 330,000 tons LCE by 2020. The latter is not based on concrete mine expansions or new mines.

## The price is always crucial but relatively negligible for the accumulator production!

In the end the price is only important for the economic extraction of the existing lithium deposits. In the past months the price has risen sharply. In mid-2015 the price for a ton lithium carbonate was around US\$ 6,000 and has climbed to the presently over US\$ 25,000 and surely just a snap shot. We can assume that the price will settle, in the middle to long term, between US\$ 10,000 and 12,000

per ton lithium carbonate. Either way, this is a lucrative business for the producer because the mining costs at current projects are US\$ 3,200 to 6,500 per ton. Lithium hydroxide shows similar numbers. From a quantitative point lithium accounts for a significant part of a battery, but accounts for only roughly 4-5 % of the costs of a battery. Hence the lithium price is relatively insignificant for the production of lithium ion batteries and could be kept at an economic level for the lithium producer.

## Development companies work under high pressure at new projects, ...

As the big companies Albemarle, SQM, FMC and Tianqi have plans to increase their production and at the same have no interest in falling lithium prices, many development companies work on the advancement of new lithium projects and the delineation of concrete deposits and resources.

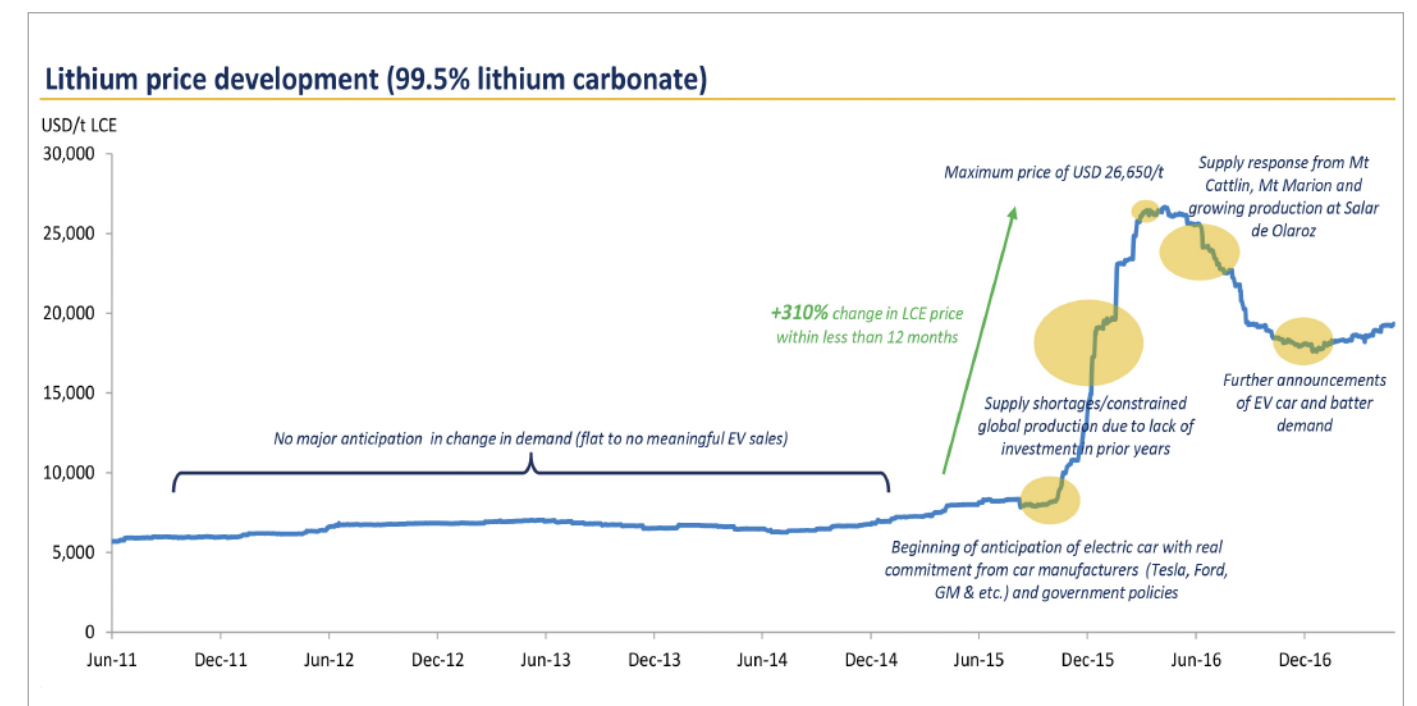
## ... in part at new lithium hot spots

Therefore, besides the typical lithium regions South America and Australia, new regions in North America and especially Canada, Mexico and (due to the proximity to the future top consumer Tesla Motors) the US, especially the US-state Nevada emerge as lithium hot spots. In the past years the Clayton Valley in Nevada has become the Lithium-Eldorado because it hosts Albemarle's Silver Peak Mine, the only operating brine lithium mine in North America. The Clayton Valley is one of the few areas worldwide where commercially mineable lithium brines are found. Recently, Pure Energy Minerals closed an offtake agreement with Tesla Motors. Another important hot spot is in Argentina's northwest where Orocobre operates the Olaroz lithium mine. In this region and in nearby Chile, some development companies like Millennial Lithium and Lithium X are active and were also be able to announce some great results.

## Summary supply side

The lithium production is (still) in the hands of a few producers. The worldwide biggest lithium producer Albemarle acquired Rockwood Holdings, the owner of the two largest lithium deposits in Chile at the beginning of 2015. Albemarle and three other companies, SQM, FMC and Tianqui (i.a. Albemarle's joint venture partner in Australia) share the lithium market mostly between each other. Although there is seemingly enough lithium on the planet, the extraction can be costly and time consuming so that higher prices are not an automatically leading to a supply increase. The supply should increase in the coming years but forecasting is difficult for the period after 2020 due to current lack of data for potential mine extensions or construction of new mines. Increased exploration activities by (smaller) development companies are indications of the potential establishment of new mines.

Development of the lithium carbonate price and transformational bull events  
(Source: Asian Metals, Navigant Research, Wealth Minerals)





## Demand situation

### The demand is rising rapidly!

One reason for the current rapid price development is a constantly rising demand. In 2000 the demand was at approximately 65,000 tons LCE and reached 184,000 tons LCE by 2015. For 2025, experts are estimating a LCE demand of more than 530,000 tons!

The driving factor will primarily be the demand from the battery and accumulator sector in association with the automotive industry. But also, the energy storage sector will create an immense demand. 2015, only one third of the lithium demand came from the battery sector; by 2025 it will probably reach 70 %.

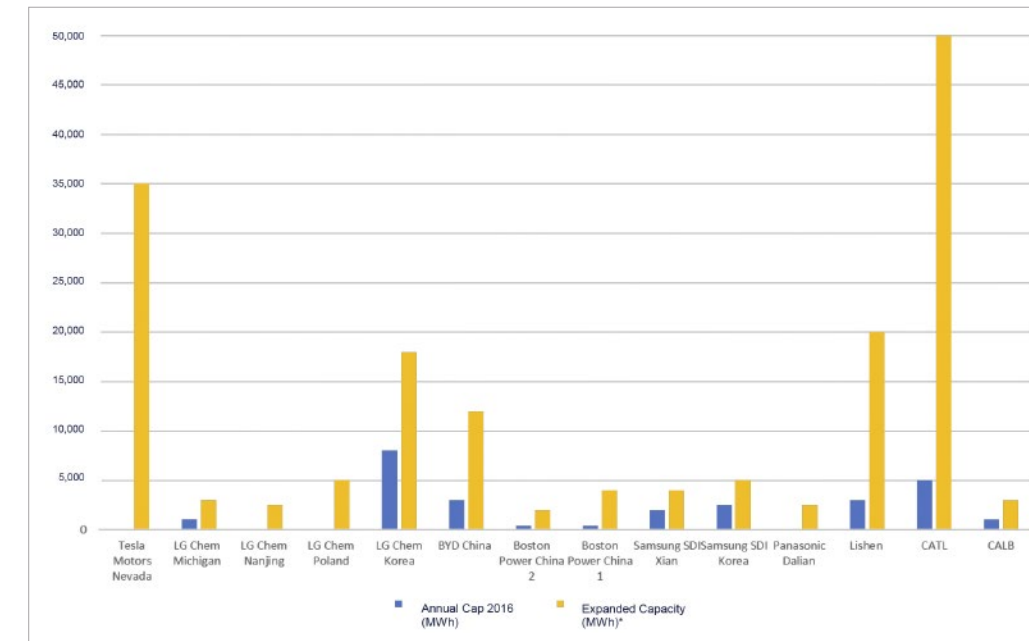
### North America is Tesla Country ...

Outside Asia, North America in particular is dominating the lithium demand. Tesla Motors is playing an important part above all. The company is constructing its so called "Gigafactory 1" in Nevada. Since 2016 lithium-ion cells, battery packs, electric motors and drive units for up to 500,000 electric vehicles per year are built there. In the future it could be pos-

sible that Tesla will purchase the necessary lithium from its previous cathode partner Panasonic. On the other hand, there is the possibility to buy the needed lithium hydroxide and lithium carbonate directly from the relevant producer. The company has closed relevant offtake agreements with only two lithium developers in Nevada and Mexico. These two companies (Pure Energy Minerals and Bacanora Minerals plus their joint venture partner Rare Earth Minerals) will most likely not start with production before 2020 and satisfy only part of Tesla's demand. This indicates that Tesla has no reliable lithium supplier between 2017 and 2020 and they still have to secure additional offtake agreements for the time afterwards to guarantee acceptable prices and to become independent from middlemen like Panasonic.

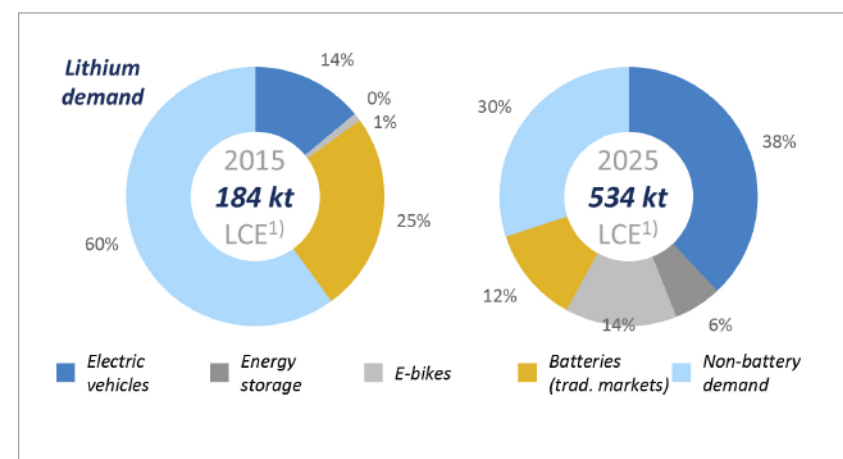
### ... but the action is elsewhere by now!

Although Tesla's share at the global lithium demand will be 10% after completion of its Gigafactory 1 it is already clear that Asia will need much more lithium. China alone accounts for one third of the total demand, today. Experts estimate this will not change soon because China produces the most accumulators, batteries, glass, lubricants, air conditioning units and synthetic rubber by far. This stimulates the immense lithium consumption of the country. According to expectations China will have the strongest yearly increase in lithium demand of all important market participants during the coming 5 to 10 years due to an expected tripling of the quantity of rechargeable batteries. Additional important suppliers of lithium-ion batteries including South Korea and Japan will also guarantee a robust increase of the lithium demand. The highlights are by far the electronic giants Sony, Panasonic, Samsung, LG, BYD, Boston Power, Lishen and CATL.



In the coming years, around 300 new electric car models are in the pipeline  
(Source: Benchmark Mineral Intelligence, Nemaska Lithium)

(Source: McKinsey, Bloomberg New Energy Finance, Deutsche Bank, Wealth Minerals)



### Additional giga-factories in the construction stage

Tesla is not the only lithium consumer who plans a bigger production of lithium-ion accumulators. LG Chem has already begun production for Chevy in Michigan in October 2015. Also, Foxconn, BYD (largest producer of rechargeable accumulators especially for cell phones), Lishen, CATL and Boston Power are building their own giga-factories for, among other things, so called power banks, i.e. decentralized energy storage units. Therefore, the produced capacity of lithium-ion accumulators could more than triple by 2020.

### Summary demand side

The demand for lithium will be defined primarily by three different parties:

1. The Asian electronic groups, which aim primarily for the mass production of powerful lithium-ion batteries and accumulators for the daily use in multimedia devices etc.

2. The car manufacturers and (initially) above all Tesla Motors, but also from all other leading car manufacturers.
3. The producer of power banks i.e. decentralized energy storage units which are used in the private and industrial sector where electricity is produced by photovoltaic cells as well as wind power stations and used for their own needs.

This constellation will increase the lithium demand by 100% and beyond during the coming 5 years whereby the power banks will generate the biggest demand increase and could eclipse the other sectors.

### Conclusion

Currently, the lithium market is clearly a supply oligopoly-market. This means few suppliers face many customers. Unlike rare earth elements the market power is not with one country (China) but with four suppliers who have significant projects in four countries: Australia, Argentina, Bolivia and Chile. Currently, several (smaller)





In the coming years, around 300 new electric car models are in the pipeline  
(Source: Scharfsinn/shutterstock.com)

development companies advance and try to bring to production good projects not only in the previous production countries but also in Canada, USA (above all in Clayton Valley a downright playground for lithium developers), Australia, Zimbabwe, Mexico, Serbia and some other countries. One reason is the rapidly growing demand which, in the course of the electro revolution, is exploding. The low price for crude oil is playing, if at all, a minor part because lithium is used above all as a medium for energy storage and not for energy generation. On an overall basis a supply deficit is emerging on the market from now on, because the demand increase will exceed the supply expansion in the future. Because there is no end of the demand increase in sight past 2025 and there are no big noteworthy lithium production projects in the pipeline, that condition could last for a foreseeable time. In addition, the few suppliers have a sig-

nificant market power but are possibly not interested in a lower market price. This is the reason why smaller lithium companies will have very good development and production opportunities. Besides, from a quantitative point lithium accounts for a significant part of a battery, but it accounts for only roughly 4-5 % of the costs of a battery. Hence the lithium price is insignificant for the production of lithium ion batteries and could be kept at an economic level for the lithium producer. The lithium companies whose projects are at a very advanced stage should see the biggest upward price potential in the coming months and possibly consolidation that is via takeover scenarios.

Following we present a few of these active lithium development companies.

## Interview with Tobias Tretter – Manager of Structured Solutions Lithium Index Strategic Fund

**Mr. Tretter you are the manager of the Structured Solutions Lithium Index Strategic Fund. Which strategies do you follow and what does the fund represent?**

The fund was established in 2010 because we were aware of the potential for the resource Lithium at that time. We couldn't realize our original idea of a physical backed certificate of the metal Lithium because of its specific properties; it is indelible and cannot be stored in a safe. The only interesting possibility for our clients was a public fund which invests directly into the 25 biggest producers and developers of lithium deposits. We didn't want to invest directly into the battery producers, because in contrast to the lithium producers they will not profit from the higher lithium prices in the long term but rather have to pay these. Our investors should have the possibility to benefit directly from the coming boom for lithium brought on by the demand for lithium batteries, based on electric cars or power walls, without the risk of single investments. In the past year we rearranged the investment universe of the fund from pure lithium investments to battery metals. We think that besides lithium the demand for cobalt, magnesium, graphite or zinc will also increase in the coming years and we want to give our investor the possibility to benefit from the lithium battery boom.

**Is such a fund which is focused at a niche resource not too specialized and thereby too risky?**

Yes and no. The fund is very specialized, but the success of the lithium sector confirmed that. We still see significant potential for the resource lithium but also see the demand for other resources needed in lithium batteries. Therefore, we have together with the restructuring of the fund expanded our investment universe and

significantly reduced the cluster risk by doing so. Currently the resources graphite, cobalt or magnesium are very interesting. For example, cobalt used as cathode has some superior properties like a faster recharging of batteries. But cobalt is not fully used by the battery producers because the biggest part of the global production comes from the Congo and is thereby not a reliable source of this metal. Also, the mining conditions in the Congo are very questionable and not only investors but buyers as well avoid this production. The demand for reliable sources and ethically and environmentally clean mined cobalt is enormous and will be another trend in the years to come. We have diversified the fund a bit more and will diversify even more in the future. Regarding the risks we think that it is not too risky. As soon as the trend weakens and other resources due to a shift in demography or the reduced exploration activities, become interesting the fund can be realigned at any time. The fund is a niche product and thought as an addition in a broad diversified portfolio. If an investor believes in the success of electric cars and power walls he has the choice to buy shares of one or two companies in the sector or a specialized fund. Due to the specifications of the sector the investors should prefer funds or certificates to direct investments in order to minimize the risk of a single stock. That it can be useful having a "niche product" in the portfolio for the long term we could demonstrate last year with the receipt of the Lipper Fund Award for the best resource fund of the past three years.

**In the past 10 years we have observed once in a while the formation of bubbles in "trend resources". The uranium bubble and the hype around the rare earth elements, graphite etc. comes to mind. Why should it be different for lithium?**



Tobias Tretter has been active in the mining sector since 2000. During his activity at Dr. Jens Ehrhard Wealth Management he supported the management of the DJE Gold & Resources Fund, which was awarded as the best performing commodity fund of 2003. From 2005 to 2008 he co-managed the Stabilitas Funds, which have been awarded as the "best performing Gold Fund" in 2006. Since 2009, Mr. Tretter acts as CEO and responsible person for the Index- and Portfolio-Managements of Commodity Capital AG. He is managing the Commodity Capital Global Mining Fund (ISIN: LU0459291166), the Structured Solutions Lithium Index Strategie Fund (ISIN: LU0470205575) and the Managed Accounts of Commodity Capital. Tobias Tretter holds a business diploma degree from the University of Bayreuth.



Hypes are not necessarily negative for the investor. It is important to recognize them early on and to exit this markets in time. With all the three mentioned “hypes”, each one was a hype among the investors which was not based on the rising demand from the industry. Yes, there was a rising demand for uranium until the terrible events in Fukushima. Since then the operators of nuclear power plants in Japan are more the sellers than the buyers and are the main reason for the falling uranium prices. There was never a bottleneck in the production of rare earth elements but instead it was during processing in the Chinese refineries. And with graphite the problem is that the demand rises parallel to the demand for lithium, but it is possible to produce synthetic graphite but with lower quality. It is also difficult for experts to estimate which resource project has the right quality for the end consumer that is the battery producer.

With lithium the fundamental situation is totally different. I believe that Goldman Sachs gave the best answer in one of their first studies on the topic lithium with the headline “is lithium the new gasoline”. I would not go that far and compare lithium with the situation of the oil or fuels in the 1970s, but one thing is for sure; the switch to electric cars and regenerative energy sources and a decentralized storage of energy is with the currently available technology not possible without lithium ion batteries. This is very well recognized by the huge investments from the industry in new battery factories which will all need lithium. From a quantitative point lithium accounts for a significant part of a battery, but accounts for only roughly 4-5 % of the costs of a battery. Hence the lithium price is insignificant for the production of lithium ion batteries. The only important point is the sufficient supply of lithium. In view of the massive expansion of the battery production there are reasons for questioning

if it will be possible to satisfy enough of the demand with new production in the coming years.

***What do you look for specifically in your evaluation of a lithium company or a lithium resource?***

In a lithium company, like any other company, the investor should look at management first. What is their track record, how much has management personally invested and which investors are supporting the company? Many of the “new” lithium exploration companies that in the past years were active during each of the above-mentioned “hypes” try their luck with a new project now in the lithium sector. These will continue to be unsuccessful and disappear as they have done before. It is important to look carefully at the relevant quality of the management.

Regarding the projects, you have to distinguish primarily between brine projects - the extraction from dried-out salt lakes - and hard rock projects - the conventional processing of hard rock. Besides the grades, profitability etc. it is of vital importance for the investor to look particularly at the ratio of magnesium to lithium. A too high amount of magnesium renders it unprofitable or impossible to leach out the lithium carbonate from the salt. A good example is one of the biggest lithium resources: the Salar de Uyuni which contains approximately 50 to 70 % (!) of the global lithium resources, but due to the ratio of above 20:1 of magnesium to lithium and the lower evaporation rate a production is not profitable with the recent extraction methods. Furthermore, environmental aspects have to be respected. Especially for the extraction from salt lakes some conditions have to be considered. For the conventional production by evaporation in big ponds a lot of land is necessary, and the operator

has to ensure that there is not too much damage to the natural environment. These projects also require extremely long lead times. It takes up to two years after the production start until the company can sell the first lithium. In addition, the industry is working on new methods to extract lithium from brines. These new methods contain a significant potential however several years will go by until they can be used for a commercial production.

The main problem of the whole sector, the lack of lithium experts, will not be solved that quickly. The extraction of lithium is, in contrast to the production of gold, copper and other metals, primarily a chemical process and the extraction method is significantly different from project to project.

***Previous main mining regions are South America and Australia with smaller operations in China and the USA. Where do you think the future main mining regions for lithium will be?***

Currently the biggest part of the lithium production comes from the tri-border region Chile, Argentina and Bolivia. Because of the low lithium price, the production from the salt lakes is cheaper and thereby profitable. There are lithium occurrences around the world and we will see a variety of new lithium production sites in the future. Currently the focus of the industry is on Argentina due to the very favorable mining conditions in this country and its clear rules for lithium production. This gives the companies a certain security regarding the permits. We are expecting a turnaround towards Chile during the coming six months. To date lithium is a strategic metal in Chile and non-state Chilean companies are not allowed to mine and export lithium. The current Chilean government wants to change that. Its target is becoming the largest lithium

producer in the world and that is only possible with investments from foreign companies. We see Chile as a very attractive location and expect a little lithium rush during the coming months. But there too regarding the investments it is important to pay attention to the management.

In principle I believe that the number of hard rock projects will increase due to the higher lithium prices and will be spread out more globally. The main mining areas will still be South America and Australia.

***How important are the planned giga-factories for the production of lithium-ion batteries for the lithium market in the future?***

The giga-factories are the key or the engine of the lithium demand and play an essential part. Tesla's mega-factory alone will double the global production of lithium batteries. Elon Musk has promised the construction of five additional giga-factories and will announce the new locations of the factories by the end of this year. Not only Tesla but also BYD, Foxconn, LG or Daimler are building new mega-factories and investing several billion US\$ in the upgrading/installation of new battery productions. By 2020 the production will triple to at least 87 GWh. But this is not only for the production of batteries for future electric cars but also for the decentralized storage of regenerative energies using batteries as well.

As mentioned before the lithium price plays a minor role in the costs of the battery production so that the availability of lithium is the primary important factor. For sure the giga-factories don't want to stop their production because of the temporary lack of lithium. Currently the lithium market is a bit of a race against time. Certainly, there are enough lithium resources worldwide. The massive in-



Brine-Projekt in Argentinia  
(Source: Millennial Lithium)

crease of the production of lithium batteries and with it the demand for lithium in the coming years could cause problems for the mining companies which didn't invest in the past years due to the general crisis in the mining sector. The projections of the lithium demand are continuously corrected upwards and there are many who see a lithium demand of 1,000,000 tons lithium by 2025. The current production of 200,000 tons has to increase fivefold in the coming years. Considering the long lead time of new projects this is quite an utopian idea. In the coming years the question for the lithium sector will not be: "How high is the lithium price" but "where do I source my lithium and how is the availability".

**Mr. Tretter let us get back to your fund. Which are the biggest single positions in your fund and why?**

Generally, we closely follow – also with our global mining fund – the life cycle of

the resource companies and see by far the best chance/risk ratio for junior companies which have just started production or will start the production in the near future. These are the companies which have already successfully overcome the biggest risks and are potential takeover targets for major mining companies. Therefore, besides the established big producers, particularly Lithium Americas and Nemaska Lithium as coming producers are represented. While Lithium Americas is close to the start of production at the Cauchari Olaroz Project in Argentina, Nemaska owns one of the highest grade and biggest hard rock projects worldwide in the politically stable province of Quebec and can benefit from the very low electricity prices in this province.

Wealth Minerals should be the biggest profiteer from the opening of the Chilean market and is certainly in the pole position there.

**Which companies with an actual low weighting in your fund or that are not represented in your fund do you currently have on your radar screen and why?**

Every single day there are new companies which want to benefit from the outstanding perspectives in the lithium sector. However, I expect a stronger consolidation of the lithium exploration companies in the next 24 months. This will ensure that the "promotion" companies disappear, and the investors will focus once again on the companies with the best management teams and the best projects. One of the "new" companies where we see a significant potential is Millennial Lithium. The company has quietly acquired a very prospective lithium brine project in the Puna Region where the projects of Orocobre and Galaxy are located. Furthermore, the company hired Ian Scarr, an absolute expert who was responsible for multiple discoveries for Rio Tinto worldwide including the Jadar lithium project in Serbia, one of the most prospective lithium occurrences in the world.

In addition, we see significant potential in Standard Lithium, a relatively new lithium company which has besides projects in Utah a project in California. This project could commence the production in the near term and supply the American market and therewith among other things Tesla's mega-factory with lithium. The global demand for lithium might not be satisfied by conventional mining methods. Standard Lithium has old oilfields in Utah which contain, besides oil, considerable amounts of lithium. If the company finds a way for a low-cost extraction of the existing lithium this would open new possibilities for the lithium production. After many discussions with industry insiders we are very optimistic that the production of lithium from old oilfields is economical feasible and see significant

potential for the company which is also managed by an excellent management team.

**Mr. Tretter a last question and I would ask you for a brief answer: You have mentioned your selection criteria are among other things, management and the magnesium/lithium ratio. Which three purely economic or project specific criteria should interested lithium investors keep in mind?**

As the saying goes among geologists: "grade is king"! The higher grade a project, not only is the return increasing there is also more scope for solving potential problems or cost increases. But you have to bear in mind that in general brines have definite lower grades than hard rock projects and they are easier and cheaper to mine.

Also pay attention to the infrastructure. Water and electricity are key factors which can lead to success or ruin of a project. Pay attention to the availability and the respective costs.

I should mention a last point that political framework like the support of the local residents is an important investment criterion and is frequently responsible for the failure of a project. In fact, most of the investors cannot visit the projects themselves but in most cases, it is already very helpful to read the local newspapers online.



# Advantage Lithium

## An absolute fillet piece in THE lithium hot-spot with a production-chance within three years!



Advantage Lithium is a Canadian mining company specializing in the development of lithium projects in North- and South-America. The company recently reported for the acquisition of Orocobre's Cauchari Project.

### Flagship project Cauchari – Acquisition and Resource

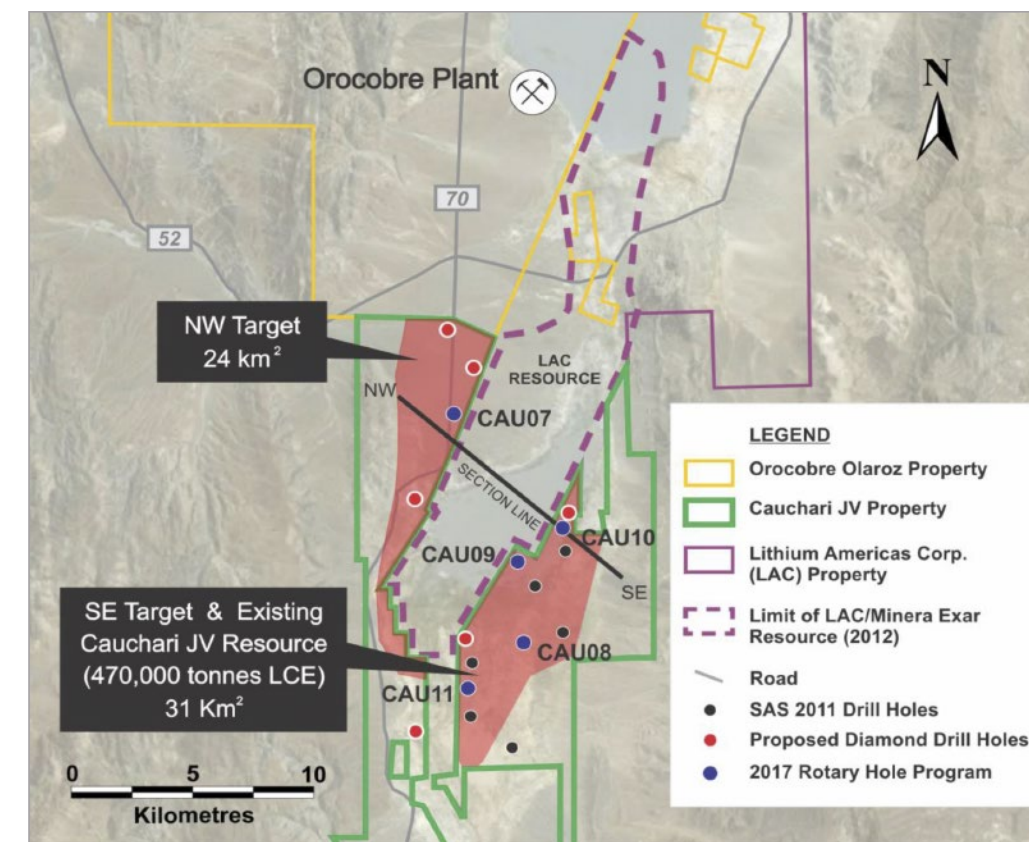
In November 2016 Advantage Lithium landed a special coup: the company signed a memorandum of understanding with one of the leading lithium producers, Orocobre, to acquire an initial 50% interest (expandable to 75%) in the Cauchari lithium project. In March 2017 this company maker deal was finalized. Cauchari hosts an inferred resource of 230 million cubic metres of brine at 380 mg/l Lithium and 3,700 mg/l potassium. The Cauchari Project borders Lithium America's and SQM's Cauchari Project for which Lithium America recently received from

Bangchak Petroleum Public Company Ltd. and GFL International Ltd. a financing of US\$ 286 million.

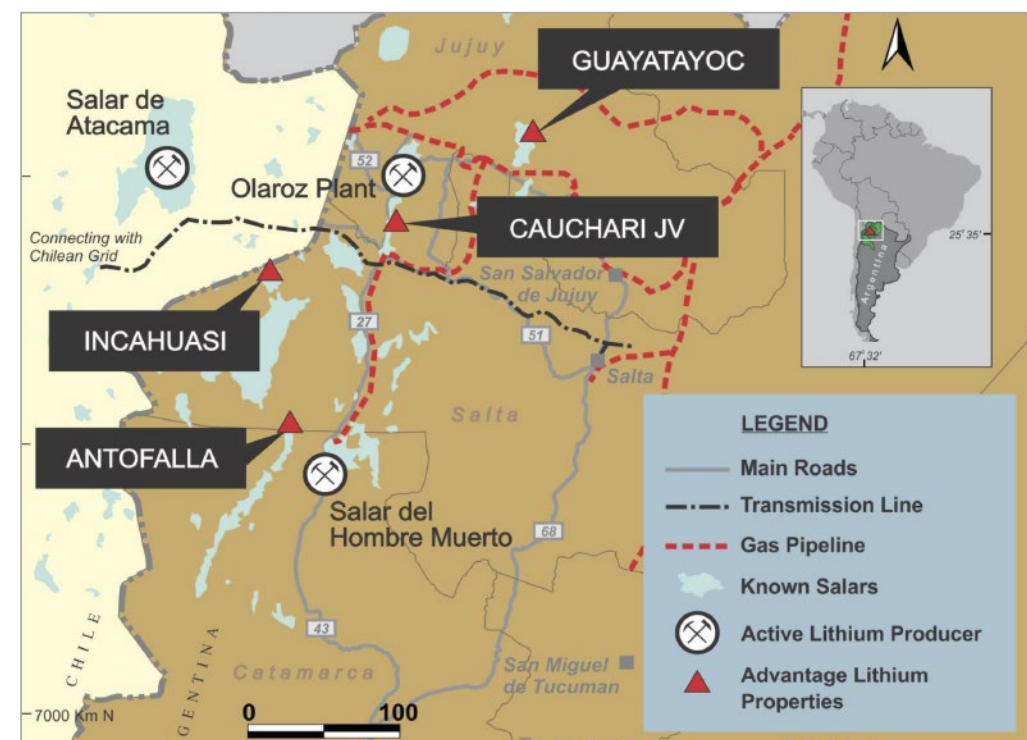
Advantage Lithium closed a financing of CA\$20 million for the development of the Cauchari project. For this deal Orocobre received 46.3 million shares of Advantage Lithium and Peral received additional 8.175 million shares from Advantage Lithium. In addition to the Cauchari project Advantage Lithium holds a 100% interest in five additional lithium projects in Argentina.

### Flagship project Cauchari – Exploration and Development

In May 2017 Advantage Lithium began with the drilling activities at Cauchari. The company engaged the same drill contractor who carried out the drilling at the adjoining mega-project of Lithium America/SQM. The first phase of the drill



The main focus lies on the areas directly adjacent to Lithium America's resource  
(Source: Advantage Lithium)



Cauchari lies within the lithium triangle in northwestern Argentina, only a couple of km away from the Olaroz plant  
(Source: Advantage Lithium)

program consisted of 5 drill holes in total to a depth of 400m. The main focus was on areas immediately adjoining northwest and southeast Lithium America's resource. Advantage Lithium expects to extend the resource to depth. To accelerate the drill program a second drill rig was put into operation in July 2017 and a third in September 2017.

In September the company had its first success as a pump test was conducted in the first drill hole. During the first 6 hours the test returned average lithium grades of 678 milligrams per liter (mg/l) and 682 mg/l over the total test time. This confirmed a strong continuity of the lithium grades from the beginning to the end of the pump tests. In addition, the Mg/Li ratios were an excellent 2.2/1 – a very low figure which holds enormous economic advantages. Another import-

ant finding was that this Mg/Li ratio is comparable to that at the now producing Olaroz project, 20 km to the north of Cauchari. Additional drill and pump results are expected during the coming months.

### Top Management team wants to score again

Advantage Lithium's management is led by a proven and experienced team with David Sidoo as President and CEO and includes a number of Orocobre board members. Orocobre is the first new independent lithium producer in the last decade.

CEO David Sidoo manages a successful private investment banking and finance management company. He worked as



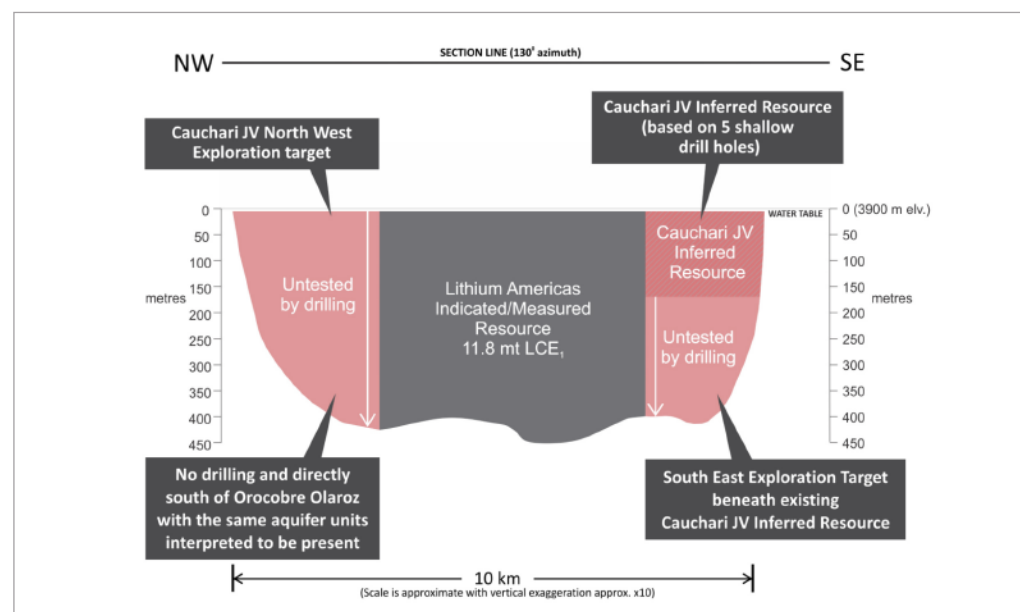


Cauchari Project  
(Source: Advantage Lithium)

broker at Yorkton Securities and rose quickly to one be of the best paid driving force in the company with commissions continuously ranking nationwide under the top five. He was a founding shareholder of American Oil & Gas Inc. which was sold to Hess Corporation in an all stock transition valued at US\$ 630 million. Currently he is

in the Board of Governors for the University of British Columbia. On June 14th, 2016 Sidoo was awarded the Order of British Columbia, the highest civilian honor of the province of British Columbia. Director Richard Seville is CEO and Managing Director of Advantage Lithium's joint venture partner Orocobre. He joined Orocobre in 2007 and developed the

Advantage Lithium aims for an expansion of the lithium resource to depth  
(Source: Advantage Lithium)



company from a little unlisted Australian explorer into a leading lithium producer.

### Summary: top projects, top partner, top management, top potential!

Advantage Lithium landed the absolute company maker deal with Cauchari! The company not only has a large lithium and potash resource but also a strong partner in Orocobre which has an already established lithium carbonate production only a few kilometers away. According to the management of Advantage the production could be established at the joint venture project by 2019. Just at the right

time to benefit from the looming supply deficit in the lithium sector. These are prime conditions for a successful development in the coming months which will be characterized above all by the announcement of corresponding drill results. A sign for the increased interest by investors in Advantage Lithium is the fact that since August 2016 the company was able to raise over CA\$ 29 million of fresh capital.

## Exclusive interview with David Sidoo, CEO of Advantage Lithium

### What did you and your company achieve within the last 12 months?

Following extensive assessment of several lithium opportunities, in March 2017, Advantage Lithium entered into an agreement with Orocobre Ltd to acquire an immediate 50% interest in their Cauchari JV property with the option to acquire an additional 25% through expenditures of USD \$5 million which we expect to achieve before the end of this year. The acquisition also included a 100% interest in four early stage prospective properties. The total package covers 85,543 ha in the northern provinces of Jujuy, Salta and Catamarca in Argentina's lithium triangle. Monetization of our Salinas Grandes asset to LSC Lithium Corp for a cash payment \$740,000 and issuing 256,520 LSC common shares.



David Sidoo, CEO

Our Cauchari JV drill program which began in early May this year is advancing on time and on budget with three drill rigs turning right now. Our first results from a single-well pump test on hole CAU10 returned 678 mg/l in the SE sector of Cauchari with sample results ranging from 585 to 724 mg/l lithium and excellent Mg/Li ratios averaging 2.1:1. The objective of the drilling is to expand the depth and lateral extent of the existing NI43-101 mineral resource and launch a Preliminary Economic Assessment in early 2018.

### What are the main catalysts for your company within the next 6 months?

Before the end of the year we expect to have results from 4-5 rotary holes and



5-6 diamond drill holes which will drive us forward towards an updated and larger mineral resource. Of particular interest is the North-West sector of the property in an untested zone of the salar below gravel cover which would represent a spectacular new discovery when successfully delineated. Meanwhile results will continue to flow steadily from the South-East sector where our existing resource is located.

In early 2018 the plan is to table an updated and much larger NI43-101 resource and commence a scoping study to examine economic trade-offs for future production options of standalone plant versus supplying brine to our partner's producing facility just 10km away.

**What is your opinion about the current conditions of the lithium market?**

Most knowledgeable market watchers continue to be bullish on the lithium spa-

ce with some predicting Lithium Equivalent Carbonate (LCE) prices averaging \$13,000 a ton for the period 2017 to 2020 period, a significant increase from the \$9,000 level in 2016 (source: Benchmark Mineral Intelligence). The drivers propelling this price curve include several micro- and macro-economic factors principally accelerating penetration of lithium batteries in the Electric Vehicles (EV) auto sector, slower than expected supply of LCE coming to market, and a global push towards a "green" policy of substantially reduced carbon emissions in the not-to-distant future. So, the general consensus is that current or higher price levels will continue to be supported by demand fundamentals offering bountiful opportunities for good projects such as ours.

**ISIN:** CA00782P1080  
**WKN:** A2AQ6C  
**FRA:** 14D  
**TSXV:** AAL

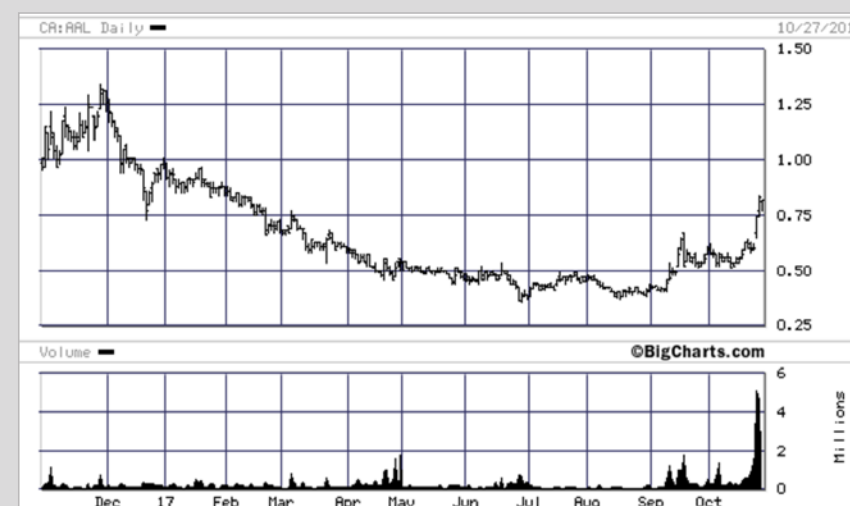
Shares outstanding: 135.1 million  
Options: -  
Warrants: -  
Fully diluted: 135.1 million

**Contact:**  
Advantage Lithium Corp.  
#1305 – 1090 W. Georgia Street  
Vancouver, BC, V6E 3V7

phone: 604-685-9316  
fax: 604-683-1585

info@advantagelithium.com  
www.advantagelithium.com

## Advantage Lithium Corp.



(Source: BigCharts)

## Durango Resources

### Women power is shaking up the resource sector!

Durango Resources is a Canadian development company with several prospective mineral properties in Canadian provinces. The main focus of the company is the NMX East Lithium Project adjacent to parts of Nemaska's world-class Whabouchi Project. In addition, the company has limestone, graphite, gold and silver licences which could take the Durango shares to the next level in case of a big discovery.

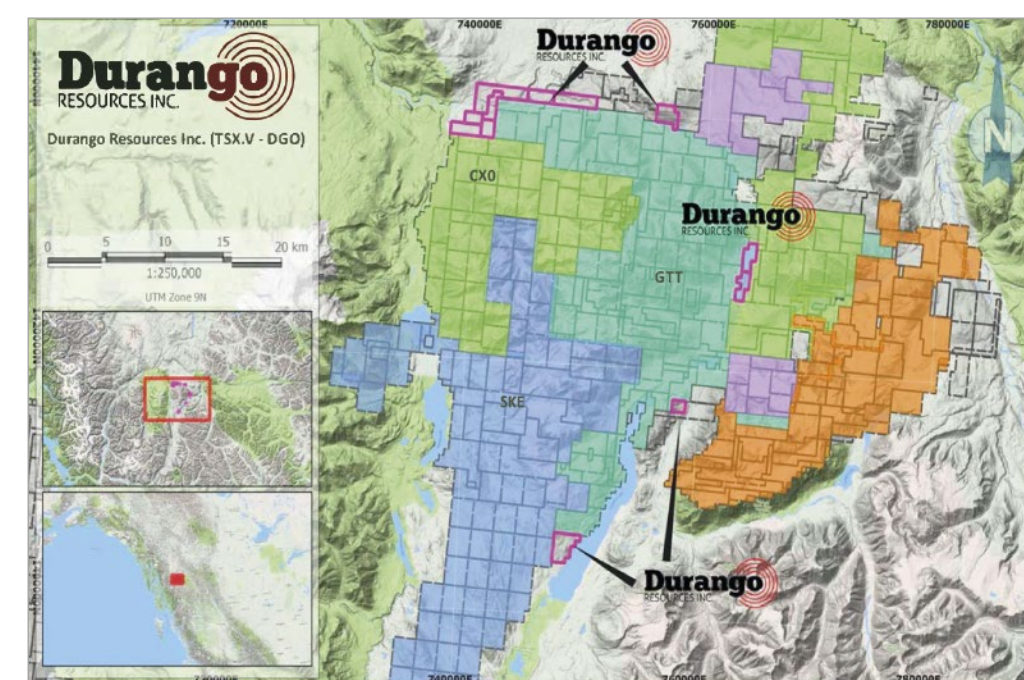
### NMX East Lithium Project

Durango Resources' current flagship project is the NMX East Lithium Project in the Canadian province of Québec. The project consists of four license areas. Two of the areas (the West Block and East Block) border directly Nemaska Lithium's Whabouchi Project. The last resource estimate for Whabouchi in December 2016 indicates measured and indicated open pit resources of 36.62 million tons averaging 1.48 % Li<sub>2</sub>O and inferred resources of 7.189 million tons averaging 1.37 % Li<sub>2</sub>O. Whabouchi the-

refore hosts the second largest hard rock lithium deposit known worldwide and has the potential for additional resources. The East Block of Durango Resources' NMX East Lithium Project is situated immediately east of the Whabouchi Project. The third block, the South Block, is situated approximately 7 km southeast of Whabouchi. With the exploration program in August 2016 Durango was able to identify three lithium bearing intrusions in the East Block approximately 3 km from Nemaska's resource and in the South Block. These intrusions were characterized as lithium cesium tantalum pegmatites. In the West Block, several outcrops were discovered which are close to the southwestern border of Nemaska's Whabouchi Project. In the course of the 2016 drill program Nemaska discovered a new mineralized zone which appeared so promising that the company extended the current drill campaign from 44 holes (13,700 m) to 50 holes (17,400 m). This new mineralized zone was detected in 12 drill holes and named Doris possibly extending on to Durango Resources' license.



Marcy Kiesman, President



Durango's licenses in British Columbia's golden triangle  
(Source: Durango Resources)

## Positive assay results!

In 2011 the company already defined pegmatite occurrences with an initial exploration program and identified the first drill targets. But at that time the company did not perform any follow up activities. During the 2016 summer campaign Durango Resources collected in total 200 surface samples on the four blocks and sent 87 (8 reference samples) to ALS Minerals, Val-d'Or (Québec).

In the middle of September 2016, the company received the results and 25 of the grab samples returned lithium grades from 50 to 332 parts per million (ppm) and 0.32 % Li, with cesium up to 80.9 ppm, tantalum up to 77.1 ppm and rubidium up to 2,140 ppm. This is typical for LCT (lithium-cesium-tantalum) pegmatites.

Out of a total of 79 surface samples sent to ALS Minerals, Val-d'Or (Québec), 47 samples were taken from pegmatite outcrops. Out of this group of samples: 11 samples returned over 129 ppm  $\text{Li}_2\text{O}$ , up to 689 ppm  $\text{Li}_2\text{O}$ ; 5 samples returned over 50.3 ppm Cs, up to 83.6 ppm Cs; 22 samples returned over 481 ppm Rb, up to 2,140 ppm Rb; and 11 samples returned over 27 ppm Ta, up to 77.1 ppm Ta. This was proof of three independent pegmatite intrusions; one in the East Block and two in the South Block. The intrusion in the East Block is only 3,000 m from Nemaska's Whabouchi occurrence whose extensions reach to depths of at least 500 m. This suggests that Durango's pegmatite outcrops are only a small portion of much larger intrusions too, like the tip of an iceberg. They could extend in depth as well laterally and in strike. Furthermore, most LCT pegmatites exhibit concentric zonation. Moderate grades of lithium, cesium and tantalum as well as higher concentrations of rubidium at the surface indicate a spodumene mineralization at depth. Durango Resources could have up to three spodumene mineralizations on its projects or an extension of the Whabouchi deposit.

## Limestone projects for the construction of a multi-billion-dollar LNG plant in British Columbia

In August 2015 Durango Resources staked several claims covering in total 300 hectares near Terrace, British Columbia, and named it Mayner's Fortune Limestone Project. This area consists of a two-kilometer-thick rock sequence hosting several limestone units of variable thickness. The thickest unit, Unit 5, has a high purity and a thickness of up to 200 m.

At the same time the company acquired a past producing limestone project in the same region called Smith Island. This project is not far from Prince Rupert in northwestern British Columbia. Smith Island was named after the island where the project is situated. At a distance of 6 km on Lelu Island the oil and gas giant Shell plans the construction of a LNG plant for estimated 36 billion dollars on Lelu Island. For the construction of the export terminal, estimated costs of 11.4 billion dollar, the consortium has received the construction permit from the federal Liberal cabinet in September 2016. The construction of the plant will use huge amounts of rock resources whereby Durango Resources owns the nearest (6 km away) and past producing limestone project! At the end of 2016, the company achieved more than 99%  $\text{CaCO}_3$  purity by sampling. Durango Resources plans to carry out an exploration campaign to qualify as supplier and generating the first significant cash flow for the company. Besides the LNG plant, Durango also wants to address the agricultural sector. Currently the company is in discussions with several cement producers interested in the limestone. The next step is the preparation of NI 43-101 reports. In September 2017 Durango announced the imminent start of a drill campaign.

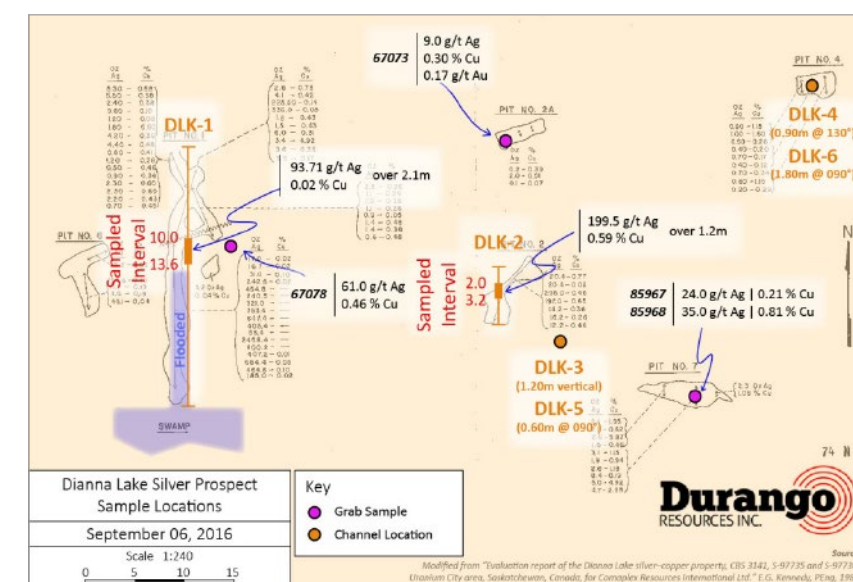
## Dianna Lake Silver Project

The Dianna Lake silver project consists of 131 hectares located 17 km northwest of Uranium City in the Canadian province of Saskatchewan. Historic exploration activities discovered in grab samples unbelievable silver grades of up to 2,458.4 ounces of silver per ton. This is equivalent to more than 76 kg of silver per ton of rock. Besides this absolute peak value, the samples returned 684.4, 647.4, 600.2, 464.2, and 454.8 ounces of silver per ton! All these samples were collected in one pit. In a second pit the previous exploration teams found amongst others 298.0 and 197.0 ounces of silver per ton of rock. A historic non-compliant NI 43-101 resource estimate describes an initial resource of 5 million tons averaging 0.4 ounces of silver and 0.4 % copper. In September 2016 Durango Resources reported the result of a channel sample with 19.5 grams of silver over 3.2 m and the result of a grab sample with 2.06 % copper. The copper sample was taken in an area not tested to date. In August 2017 Durango successfully completed the dewatering of Pit #1 which was partially flooded. Samples were collected afterwards; the results are pending.

## Option Agreement with BonTerra for the Trove Gold Zinc Project

Another very prospective project is the Trove Gold Zinc Project in the so called Urban Barry Greenstone Belt. The particular on Trove is the short distance to the VMS deposits Barry (Metanor) and Windfall Lake. Windfall Lake is now in possession of Osisko Mining and is being aggressively explored. Other project licenses of Osisko encompass the Trove Project almost completely. Osisko explores Windfall Lake as aggressively as it tries to control the whole 75 x 20 km wide district.

It was only a matter of time until Durango received three offers in total for the Trove Project in February 2017. The company ultimately decided for the offer of BonTerra Resources which will give Durango up to CA\$ 500,000 in cash and 5 million



Sampling results from Dianna Lake  
(Source: Durango Resources)

shares of BonTerra. Durango keeps a 2% Net Smelter Royalty. Nevertheless, the company extended its land position by an additional 2,600 hectares, which are not part of the BonTerra deal. Durango's immediate neighbors Osisko, Beaufield and BonTerra completed financings over CA\$ 100 million in total during 2017 sufficient for drill programs comprising of several 100.000m.

## New gold project in Golden Triangle

In August 2017 Durango Resources announced the acquisition of a land package covering in total 2,500 hectares in the Golden Triangle, British Columbia. These license areas are adjacent to exploration areas of Colorado Resources and GT Gold. The latter announced a new high-grade discovery in June 2017. GT Gold discovered, among other things, 13.03 gpt gold over 10.67m. In September



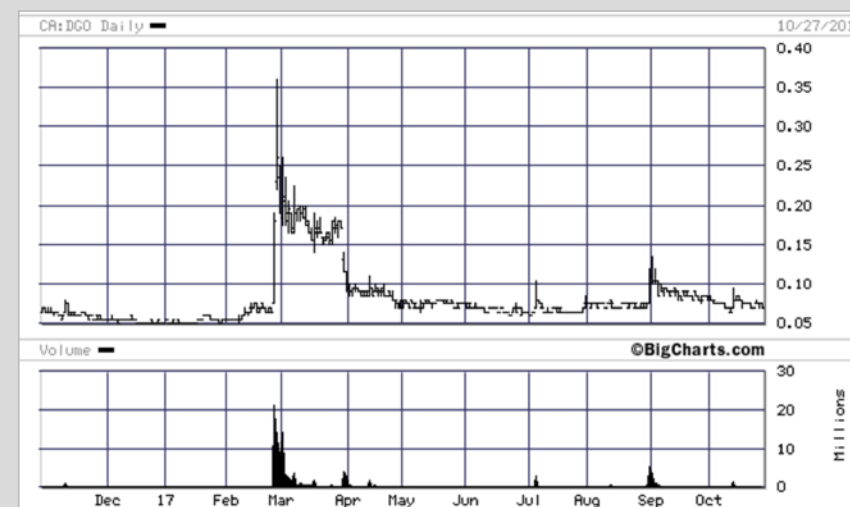
ber Durango Resources carried out initial exploration work and collected more than 120 soil samples which are currently being analyzed in the laboratory.

### Summary: Durango could have hit the mark!

This is an interesting constellation for Durango Resources being in the immediate vicinity to Nemaska's world-class Whabouchi Lithium Project. During the drill program Nemaska discovered extensions of its deposit in the southwestern part of the license area. Across the license border Durango's geological team identified potential lithium outcrops on Durango Resources' territory. What if the Whabouchi deposit extends on to Durango Resources' license area or Durango Resources has hit the mark? Di-anna Lake is kind of a grab bag. Only in a few months will we know to what extent the historic monster results can be confirmed. If this is the case a new assess-

ment will be due. Durango has already hit the mark with the acquisition of the two limestone projects in British Columbia which could guarantee a quick cash flow. Shell has already received the permit for the first construction phase. The construction should be completed by 2021. Until then Durango Resources could earn a lot of money! All in all, Durango Resources is an extraordinary mining company. Durango has not only several top chances for a big discovery in its portfolio but also the company is managed completely by a strong female team that has the ambition to shake up the resource sector! In June 2017, Durango Resources was able to complete a financing of CA\$300,000.

## Durango Resources Inc.



(Source: BigCharts)

**ISIN:** CA2664951001  
**WKN:** A1KCZY  
**FRA:** 86A1  
**TSXV:** DGO

Shares outstanding: 34.1 million  
Options: -  
Warrants: 2.6 million  
Fully diluted: 36.7 million

### Contact:

Durango Resources Inc.  
248-515 West Pender Street  
Vancouver, BC, V6B 6H5

phone: +1 604-428-2900  
fax: +1 888-266-3983

[durangoresourcesinc@gmail.com](mailto:durangoresourcesinc@gmail.com)  
[www.durangoresourcesinc.com](http://www.durangoresourcesinc.com)

## Liberty One Lithium

### In good company with the prospect of a large lithium resource



Liberty One Lithium is a Canadian development company focused on its flagship Potosí West Project in the Potosí Salar, northwestern Argentina.

### Potosí West – Location and Size

The Potosí Salar is located in Salta Province, Argentina, in the lithium triangle, the border region of Argentina, Bolivia and Chile. The distance from the provincial capital Salta City is 160km. The distance to the nearest deep-water harbor (in Chile) is also 160km. The Potosí Salar is accessible by National (Route 51) and Provincial (Route 27) roads from Salta City. The Potosí Salar is located on the same geological trend as some of the most famous and prolific Salars such as Olaroz and Cauchari (production by Orocobre and SQM), Pastos Grandes (Millennial Lithium) and Sal de Los Angeles.

The Rincon project of Energi Group is located a few kilometers to the north where a lithium processing plant with 50,000 tons capacity is planned. Pure Energy Minerals owns a lithium project in the Potosí Salar. In close proximity there is access to a gas pipeline, high-voltage power line and a railroad track. Liberty One Lithium's Potosí West Project comprises around 15,857 hectares.

### Potosí West – Acquisition

In February 2017 Millennial Lithium reported the signing of an option agreement for the acquisition of a 100% interest in the Potosí West Project. In May 2017 Millennial Lithium announced that the company had entered into an option agreement with Liberty One Lithium for the Potosí West Project whereupon Liberty One can earn up to 70% of Potosí West by a staged payment of

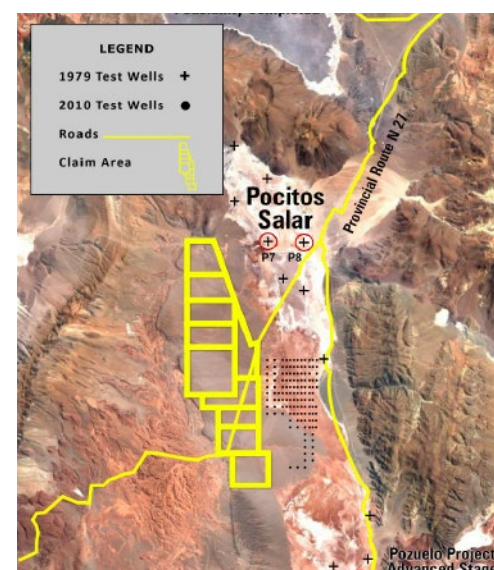
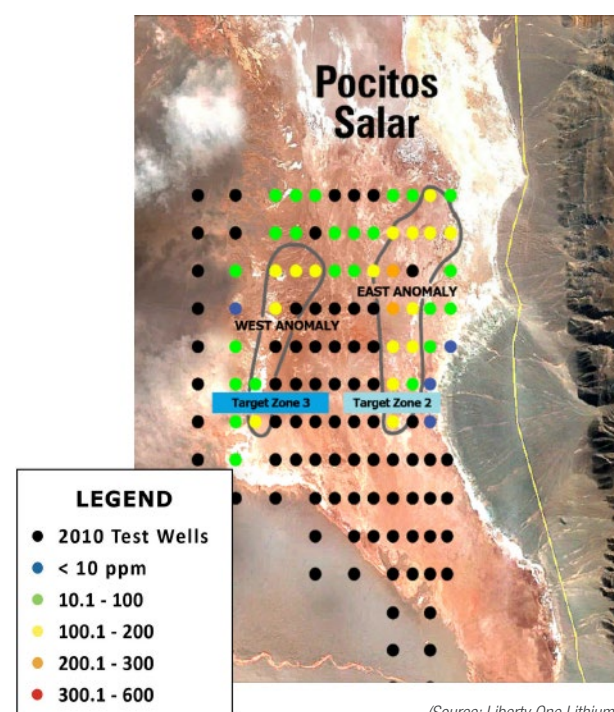
*The Potosí West Project is surrounded by top-class lithium projects  
(Source: Liberty One Lithium)*



US\$5.5 million in cash to Millennial Lithium and additional US\$1 million in development expenditures for the project. For the complete acquisition of the project Liberty One has to pay US\$4.5 million in total within three years.

### Pocitos West – Historic Discoveries

The 60km long Salar was previously explored during the 1970's, whereby up to 417ppm lithium and 15,300ppm potassium were discovered in shallow depths. In 2010 near surface sampling provided lithium grades between 300 and 600ppm. This anomaly in the eastern part of the Salar extends over 6 x 2km at least and borders Liberty One Lithium's project area. There, in the western part of the Salar grab samples delivered lithium grades between 100 and 200ppm. A more detailed exploration with modern methods has not yet been carried out.



### Pocitos West – Exploration by Liberty One

Since the acquisition of the project in May 2017, Liberty One Lithium has reached several important milestones. The company secured an experienced geological and exploration team that knows the area like their own backyard. This will save a lot of money, so the abundant financial resources can be used very efficiently. A geophysical survey identified a brine formation extending over 29 km in a north south direction. In the third quarter of 2017 the company received the permit for an initial 11 drill holes.

### Pocitos West – Additional Steps

Based on that, Liberty One Lithium will carry out an exploration program comprised of up to four drill holes in the fourth quarter of 2017 including soil sampling as well as pump and flow tests. In doing so, the company will examine the exact geology, lithology, the chemical composition, the porosity and permeability of the rock layers.

The second phase of the drilling follows in 2018. The company will drill 8 to 12 drill holes which will be analyzed in detail. The objective is the preparation of a NI 43-101 resource in the categories measured and inferred.

### North Paradox Project in Utah

Liberty One Lithium owns, besides Pocitos West, a second lithium project; Northern Paradox. This project is located within the Paradox Basin in the U.S. state of Utah about 15km west of Moab. North Paradox has an excellent infrastructure and covers an area of 4,480 acres divided into 233 claims. The adjoining Cane Creek potash mine has its own railroad track. Historic data that, among other things, originate from the oil industry confirm the presence of relevant lithium grades in this area. North Paradox should be considered as a pipeline project at the moment because the main focus of the company is on Pocitos West.

### Top Financial Position

Liberty One Lithium's financial situation is excellent. At the end of September 2017, the company had cash resources of CA\$ 9.9 million. Around CA\$6.2 million were generated by financings. The rest was derived from the exercising of approximately 16.5 million warrants. Approximately 50% of the shares are owned by management and long-term oriented investors (partly institutional).

### Top Management Team

Liberty One Lithium has a top management team which is unparalleled. CEO Brad Nichol has been doing nothing else than financing and strategically developing promising resource companies for

the past 25 years. To date he worked primarily in the oil and gas sector. He had among other things an executive position at Schlumberger the leading oil and gas service provider. Nicol understands the assessment and efficient development of oil and gas reservoir and is therefore an expert for the extraction of relevant substances from brines.

Director Kyle Stevenson came from Millennial Lithium to Liberty One Lithium. Among other things he is the founder of High North Resources, an oil and gas producer in Alberta, Canada. In addition, he founded Waterproof Studios, an animation and visual effect studio that cooperates with leading movie companies. He is also the founder of RuralCom Networks, a leading Canadian Telecom provider.

Director Bradley Hoepfner is one of a few experts that is specialized on raw materials which are used in lithium ion batteries. Among other things he is a director of Kings Bay Gold and Berkwood Resources that are developing cobalt, graphite and rare earth resources in Canada.

CFO Morgan Tincher is a specialist for the financing of small and medium sized companies in the early development phases.

**Summary: the right well financed people are at the right place at the right time for the transformation of chances into real value!**

Granted, Liberty One Lithium is currently still one of many lithium development players but at the same time have a mixture of good and eager people, an apparently top project, a large cash position and excellent timing. Liberty One Lithium's immediate neighbor Pure Energy is one of the very few lithium juniors that





(Source: Liberty One Lithium)

already has a concrete take-off agreement with a reputable lithium ion battery manufacturer (Tesla Motors), which could create a pull-effect for Liberty One as well. The Pocitos West Project is without a doubt in an early and therefore potentially high-grade development phase.

Only one find could catapult the share price of Liberty One to undreamed heights. Based on the assumption that the lithium boom is only at the beginning Liberty One Lithium offers a mega chance for one of the front places in the squad of future lithium producers.



Brad Nichol, CEO

## Exclusive interview with Brad Nichol, CEO of Liberty One Lithium

**What did you and your company achieve within the last 12 months?**

- ▶ Raised \$6.3mm in less than one year-at successfully higher prices
- ▶ Exercised ~16.5mm warrants bringing in ~\$8mm CAD in cash
  - Current Cash position of ~\$10mm
- ▶ Signed Joint Venture agreement with Millennial Lithium (\$168mm market cap @ \$3.00/share market price) on large land block in Salta Province, Argentina.
  - Millennial's President (@ the time, now a Director), Kyle Stevenson, was added our board
- ▶ Secured local, expert lithium exploration team including 29-year Lithium expert, Iain Scarr.

- ▶ Executed VES geophysical survey and demonstrated a thick, contiguous brine zone across entirety of 29km north-to-south extent of property.
- ▶ Q3 2017: Received permits and drilling approval for up to 11 holes
- ▶ Q4: Drilling underway on \$1.5mm program including core holes and pump-test.

**What are the main catalysts for your company within the next 6 months?**

- ▶ Q4 Drilling Program: Design of 1-4 holes, \$1.5mm drilling program, including core holes and pump-tests.
- ▶ Q4 2017/Q1 2018: Execute drilling program, take samples, cores and

perform flow-tests to determine:

- Geology
- Lithology
- Chemistry
- Porosity
- Permeability
- Deliverability

- ▶ 2018: Design and execute second stage of delineation drilling (8-12 holes) and associated lab testing in order to produce updated NI 43-101 report with measured and inferred resources

**What is your opinion about the current conditions of the lithium/cobalt market?**

- ▶ Lithium demand is estimated to more than triple by 2025 (analysts' consensus)

- ▶ Spot prices have risen drastically to US \$20,000/ton from \$5,000/ton in 2015
- ▶ There is a global market revolution underway with the movement from fossil fuels to renewable energy with the Li-ON battery at the forefront.
- ▶ Argentina, home to our JV with Millennial Lithium, hosts some of the world's largest lithium brine resources.

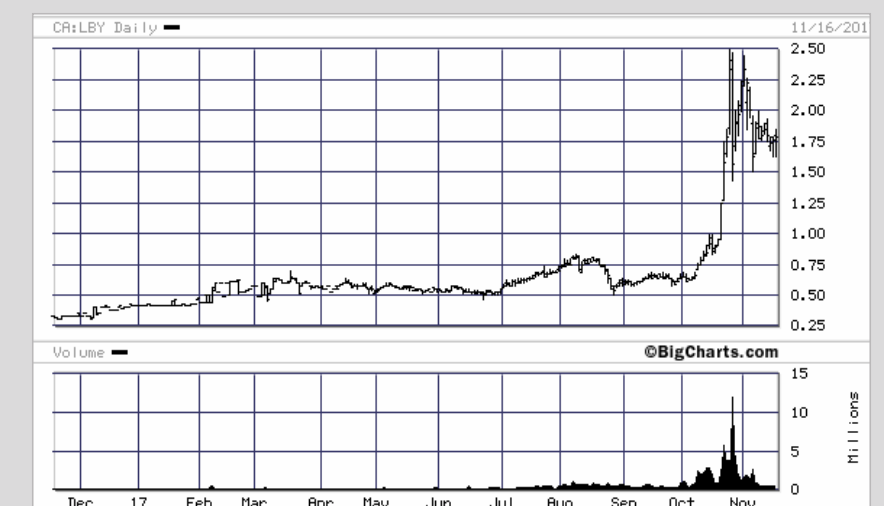
## Liberty One Lithium Corp.

**ISIN:** CA53116A1075  
**WKN:** A2DHMB  
**FRA:** L1T  
**TSXV:** LBV

Shares issued: 65.0 million  
 Options: 1.0 million  
 Warrants: 0.9 million  
 Fully diluted: 66.9 million

**Contact:**  
 Liberty One Lithium Corp.  
 1920 -1177 W Hastings Street  
 Vancouver, BC V6E 2K3 Canada  
 phone: +1 604-343-4547

Info@l1lithium.com  
 www.libertyonelithium.com



(Source: BigCharts)





## Millennial Lithium

### With a mega-management into production within three years!

Millennial Lithium is a Canadian development company focused on lithium projects in Argentina. The company has a better connection to the existing infrastructure than most competitors and aims to start production within three years.

#### Pastos Grandes Lithium Project – location and acquisition

The company's flagship project is Pastos Grandes a lithium project in Argentina's northwestern province of Salta. Pastos Grandes is a salt lake which is part of a row of similar lakes which stretch like a string of pearls across the provinces Salta and Catamarca. The project is located at a distance of approximately 50 – 60 km from the lithium projects of Lithium X, Lithium Americas, Galaxy Resources and Orocobre.

Millennial Lithium's Pastos Grandes Project consists of several parts currently covering 8,664 hectares which were acquired one by one since the middle of March 2016. The most recent puzzle piece, in total 2,492 hectares, was acquired from The Salta Provincial Energy and Mining Company (REMSA) in August 2017. The company has to pay US\$7.5 million in cash and invest US\$15.4 million in the development of the subproject during the first phase.

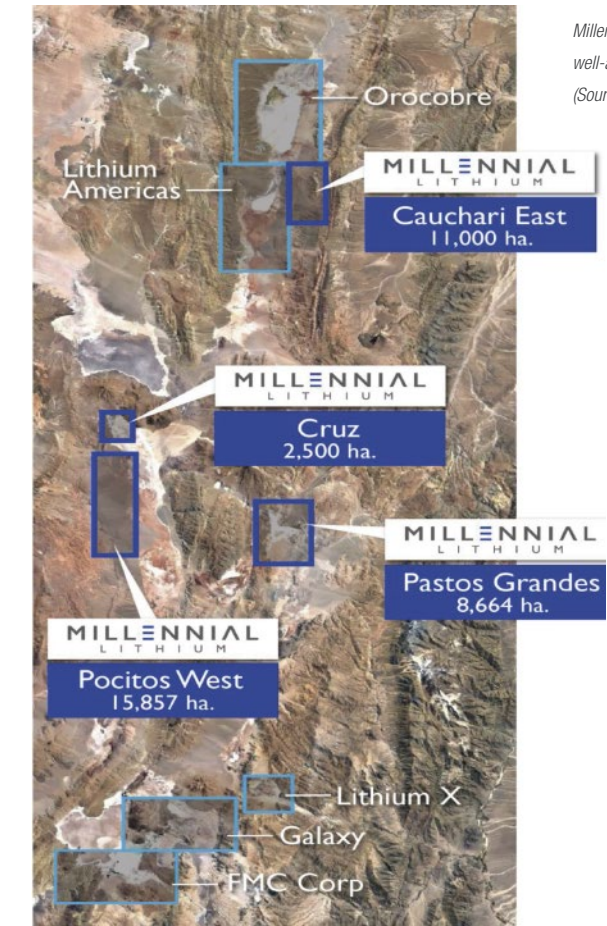
#### Pastos Grandes Lithium Project – well connected to the existing infrastructure

The biggest advantage is the relative proximity to the province capital of Salta. While the projects of most competitors are located in the middle of nowhere, Millennial Lithium has with its project a direct connection to the City of Salta with its 350,000 inhabitants located some 235 km away. Salta is the capital of the province of the same name in Argentina's northwest. There is also a 490-km road connection to the Chilean port city of An-

tofagasta, which not only has a deep water harbour but is also one of the leading mining cities in South America. Situated some 12 km north of the project area the small town of Los Pastos Grandes provides freshwater supply as well as a diesel generated 220-volt power supply. A 600-megawatt, 375 kV power line connecting Salta with Mejillones in Chile runs 53 km north of the project area. Some 26 km northwest of the project runs a natural gas pipeline.

#### Pastos Grandes Lithium Project – historical exploration activities

Extensive exploration work was carried out on the single subprojects in the past. So, in the years 2011 and 2012, one pre-



Millennial Lithium holds a number of well-advanced licenses in Argentina  
(Source: Millennial Lithium)



vious leaseholder invested over US\$ 4 million in the exploration on a 1,221-hectare part of the overall project. Historic sampling showed primarily very high-grade lithium of 400 to 600 milligram per liter (mg/l) with some samples containing up to 3,000 mg/l. Consequently, the leaseholder drilled six exploration holes in total to determine the extension of the brine as well as the aquiferous layer. In this context pumping tests were performed. In addition, geophysical studies and acoustic tests were developed. Also, evaporation tests in a pilot plant were carried out on site. The former leaseholder analyzed in three of its own brine samples lithium grades of 602.2 – 665.9 mg/l and 6,342 – 7,146 mg/l potash.

### Pastos Grandes Lithium Project – own exploration success

In the fall of 2016 the first own drill campaign began at Pastos Grandes. The first drill hole (to a depth of 192m) encountered three brine-bearing horizons with densities ranging from 1.19 g/cm<sup>3</sup> to 1.22 g/cm<sup>3</sup>. The second drill hole (to a depth of 352m) encountered eight intervals, each one-meter long.

This drill success lead to a third drill hole. Lithium grades of up to 471 mg/l were identified in these drill holes.

In June 2017 another drill hole delivered average lithium grades of 535 mg/l over 381.5m. A pump test in another drill hole reported average lithium grades of 430 mg/l over a period of 60 hours. Only a small decline of the lithium grades from 439 mg/l to 431 mg/l was recorded during the test period. In August 2017 Millennial Lithium could prove that the brine-bearing horizon extends beyond the center of the Salar. Among other things a near surface layer of 33m averaging 523 mg/l and a deeper layer averaging 545 mg/l over 211.3m were discovered! Additional drill results are expected during the coming weeks and months.

### Pastos Grandes Lithium Project – resource estimate and production plans

The management under CEO Farhad Abasov anticipates the production to begin in approximately three years and an extraction of 10,000 to 15,000 tons of lithium per year due to the good infrastructural location and the simplicity of the potential mining operation. In March 2017 the renowned company Montgomery & Associates Inc. was engaged to complete an initial NI 43-101 resource estimate for Pastos Grandes.

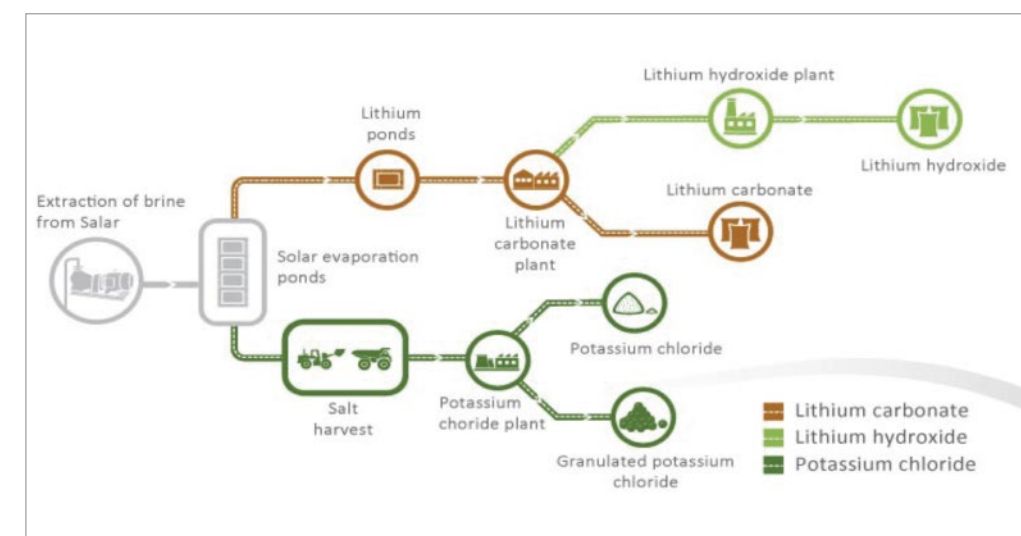
### Cauchari East Lithium Project

At the end of September 2016 Millennial Lithium announced that the company will acquire an additional lithium project called Cauchari East. Cauchari East covers an area of 2,990 hectares on the eastern side of the Cauchari-Olaroz Salar, adjacent to Orocobre's producing Salar de Olaroz and Lithium Americas Corp.'s advanced stage Cauchari-Olaroz project. Millennial's new project displays geological characteristics common with the producing and respectively well-advanced projects of the neighboring competitors and shows an especially high potential in the deeper salar layers. Surveys completed by Orocobre on their project indicate that the brine-hosting aquifers extend into the eastern part of the salar and also beneath the Cauchari East Project. Millennial Lithium was able to prove this by metallurgical studies.

In June 2017, the company was able to expand the Cauchari East project by additional 8,742 hectares.

### Pocitos West Lithium Project successfully optioned

In February 2017, Millennial Lithium announced the signing of an option agreement to acquire a 100% interest in the



Planned production process for  
Pastos Grandes  
(Source: Millennial Lithium)

Pocitos West Project, consisting of 15,857 hectares. The project is located on the Pocitos Salar in Salta Province, Argentina, and is adjacent to Pure Energy Minerals Ltd.'s acquired project area. The 60km long Salar was previously explored in the 1970s whereby up to 417ppm lithium und 15,300ppm potassium was discovered at shallow depths. In 2010 near surface collected brine samples contained between 300 ppm and 600ppm lithium.

For complete acquisition of the project the company must pay in total US\$ 4.5 million within three years.

In May 2017 Millennial Lithium announced that the company has entered into an option agreement with Liberty One Lithium for the Pocitos West Project. Liberty One will receive an initial 70% interest in Pocitos West for a staged payment of US\$5.5 million in cash to Millennial Lithium and an investment of US\$1 million in the development of the project.

### Top management for a rapid project development

A top management team was formed for the rapid advancement of the projects. During his carrier CEO Farhad Abasov arranged, among other things, the

170-million-dollar takeover of Allana Potash by Israel Chemical Ltd. and the 1.8-billion-dollar takeover of Energy Metals by Uranium One. In addition, he was a co-founder of Potash One which was acquired by German potash company K+S for \$430 million in 2010.

Chairman Graham Harris was over five years the Senior Vice President and Director of the Canadian investment house Canaccord. He raised over 250 million dollars for public and private companies. Harris is also the owner of Sunrise Drilling which is a key advantage for the exploration.

President & Director Kyle Stevenson is, among other things, founder of High North Resources Ltd. an oil and gas producer in Alberta, Canada. In addition, he founded Waterproof Studios, an animation and visual effects studio that cooperates with leading movie companies. He is also the founder of RuralCom Networks, a leading Canadian telecom service provider.

Director Andrew Bowering is co-founder of Sunrise Drilling and generated over 100 million dollars for several exploration and development companies. He also supervised several big acquisition programs.

At the end of July 2016 Millennial Lithium was able to hire Iain Scarr as VP of Ex-

ploration & Development. Among other things, Scarr worked at Rio Tinto for 29 years where he played an important role in many discoveries in North and South America as well in Africa. He was also responsible for the commercial justification of the Jadar lithium-boron project in Serbia. At Lithium One he was responsible to guide the Sal de Vida lithium brine project in Argentina through the feasibility phase with Galaxy Resources. At Galaxy he advanced the Rincon project to the definitive feasibility study. Scarr is a real asset for Millennial. He has an immense wealth of experience and an extensive network in the lithium sector.

### Summary: at full throttle towards production

Even though there is a long way to the anticipated production start it can be

seen that the management has kicked into high gear. For the first exploration campaign at Pastos Grandes US\$ 3 million were budgeted! That there is certainly the potential for a high-grade lithium resource in Argentina, recently announced drill and pump results have proved. The good infrastructure in the area (in contrast to the many competitors) could accelerate a potential production. With the help of additional own top-class exploration results and a resource estimate, Millennial Lithium's market value should rise sharply. Also for the fact, that Millennial Lithium is funded very well, by generating CA\$5.9 million in March 2017 and additional CA\$11.5 million in September 2017.



Farhad Abasov, CEO

## Exclusive interview with Farhad Abasov, CEO of Millennial Lithium

*What did you and your company achieve within the last 12 months?*

Millennial Lithium has been actively drilling on our flagship project, Pastos Grandes, in the Salta province of Argentina. The company has reported very positive drill results in the last few holes. In addition to drill results Millennial has also completed a pumping test with strong flow rate and other positive results. The company has hired a new CEO with strong track record of delivering shareholder value as well as Senior Vice President of Technical Services experienced in solar evaporation ponds and operations in Latin America.

*What are the main catalysts for your company within the next 6 months?*

Millennial is working to complete the definition drilling on Pastos Grandes with the aim of issuing the 43-101 maiden resource report in November. If the resource is robust the company intends to complete the Preliminary Economic Assessment later in 2017 or early Q1 2018. The company is conducting field evaporation trials in addition to the drilling program.

*What is your opinion about the current conditions of the lithium/cobalt market?*



Evaporation tests at Pastos Grandes  
(Source: Millennial Lithium)

The supply/demand continues being very tight. A number of major car makers have announced significant plans to shift their production from ICEs (internal combustion engine) to electric vehicles in the next few years. The electric vehicles use lithium ion batteries. Hence the demand for lithium is expected to grow further putting upward pressure on the lithium price. The supply has been quite tight with only 5 producers worldwide and very few new lithium production coming online in the next 12 months.

**ISIN:** CA60040W1059  
**WKN:** A2AMUE  
**FRA:** A3N1  
**OTCQX:** ATWGF  
**TSXV:** ML

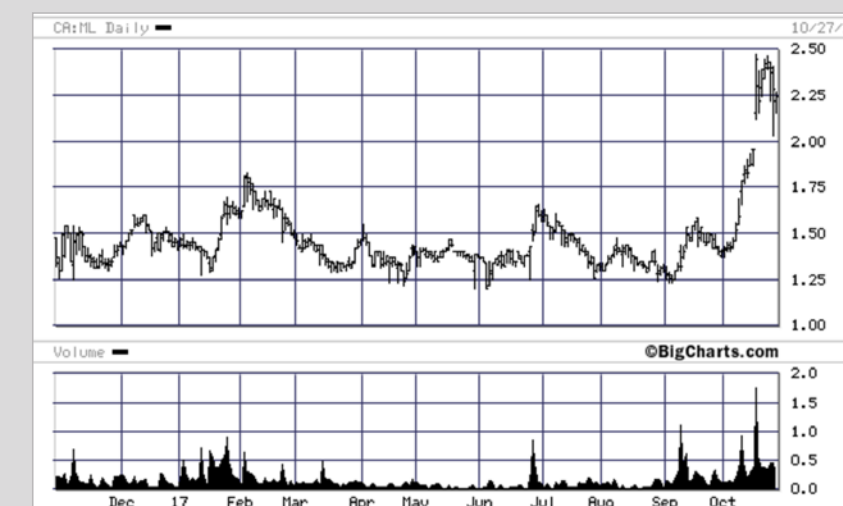
Shares issued: 35.6 million  
Options: 5.1 million  
Warrants: 9.1 million  
Fully diluted: 49.8 million

**Contact:**  
Millennial Lithium Corp.  
Suite 2000 - 1177 West Hastings Street  
Vancouver, BC Canada V6E 2K3

phone: +1 604-662-8184  
fax: +1 604-602-1606

info@millenniallithium.com  
www.millenniallithium.com

## Millennial Lithium Corp.



(Source: BigCharts)



# Nemaska Lithium

## Second largest low cost hard rock lithium deposit worldwide in ramp-up phase

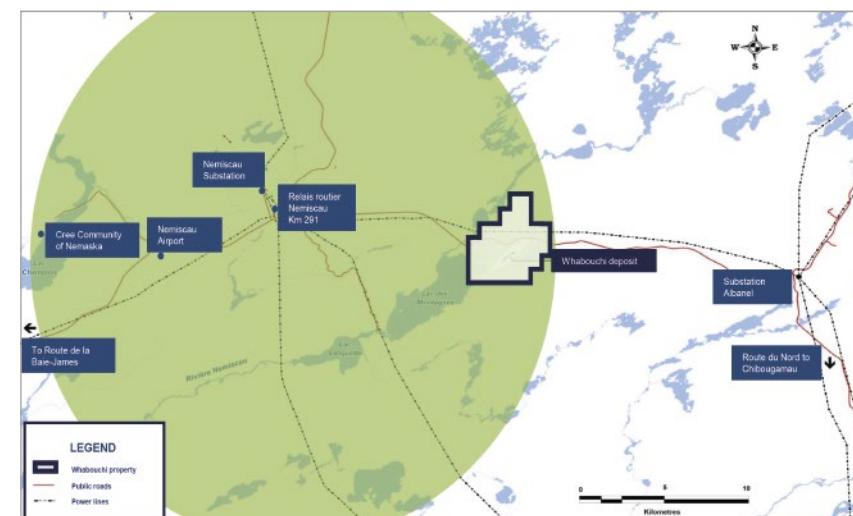


Nemaska Lithium is a Canadian development company specializing in the lithium sector. Their flagship project Whabouchi is deemed to be the second largest hard rock lithium deposit on the planet. As a result of the granting of most of the permits (to date only three lithium development projects have achieved that) Nemaska will be able to produce lithium by the first half of 2018 and refine it in its own plant from the second half of 2018 on.

### Whabouchi Spodumene Lithium Project: location and infrastructure

The Whabouchi Spodumene Lithium Project is composed of 33 claims in total, covering an area of 1,761.9 hectares. The Project is located in the Eeyou Istchee James Bay Region, about 300 km north of Chibougamau in the northwestern part of the Canadian province of Québec. The infrastructure is better than it looks at first glance. The project site is directly situated by the Route du Nord, a road maintained year-round in Central Québec connecting Chibougamau with the James Bay Road.

*Whabouchi lies within a well-advanced infrastructure*  
(Source: Nemaska Lithium)



### Whabouchi Spodumene Lithium Project: deposit, reserves and resources

The Whabouchi deposit is characterized by its location near the surface allowing initial open pit mining. The existing reserves and resources can be mined over 20 years down to a depth of 190 m. The strip ratio, the ratio of waste rock/ore containing rock, is 2.2:1. During the first phase 2,470 tons of ore material per day will be mined and processed. During the second phase, the last 6 years, the deeper resources will be mined by underground methods at 3,342 tons per day. The last resource estimate in December 2016 indicates measured and indicated open pit resources of 36.62 million tons averaging 1.48 %  $\text{Li}_2\text{O}$  and inferred resources of 7.189 million tons averaging 1.37 %  $\text{Li}_2\text{O}$ . Thereby Nemaska now has the second largest hard rock lithium deposit known worldwide and the potential for additional resources.

### Whabouchi: Extended drill program and new discovery

In the course of the 2016 drill program Nemaska discovered a new mineralized zone which appeared so promising that the company extended the current drill campaign from 44 holes (13,700 m) to 50 holes (17,400 m). This new mineralized zone was detected in 12 drill holes and named Doris. The current drill campaign has three objectives: 1) conversion of the 4.69 million tons of inferred resources inside the pit design to indicated resources; 2) increase of confidence level of mineral resources down to a depth of 200 m; and 3) confirmation of the continuity of the longitudinal zone down to a depth of 500 m.

In August 2017 the company reported excellent drill results.

The company reported the following drill results from the planned 'Five Year Starter Pit':

- ▶ 2.35%  $\text{Li}_2\text{O}$  over 26.75 meters
- ▶ 2.13%  $\text{Li}_2\text{O}$  over 33.70 meters
- ▶ 1.49%  $\text{Li}_2\text{O}$  over 90.80 meters
- ▶ 1.36%  $\text{Li}_2\text{O}$  over 82.30 meters

And in the area of the Doris Zone:

- ▶ 1.37%  $\text{Li}_2\text{O}$  over 42.00 meters
- ▶ 1.53%  $\text{Li}_2\text{O}$  over 22.50 meters

### Whabouchi Spodumene Lithium Project: Feasibility Study

In April 2014 Nemaska announced a very positive feasibility study. In addition to the already mentioned expected mine life of 26 years an independent party estimated a payback time of capital costs of 2.4 years. The initial capital costs are approximately US\$ 439 million. Based on average proceeds of US\$ 9,500 per ton lithium hydroxide and US\$ 7,000 per ton lithium carbonate the company could generate an after tax undiscounted cash flow of US\$ 3.1 billion. Accordingly, the After-Tax NPV 8% Discount will amount to US\$ 1.2 billion and the After-Tax Internal Rate of Return (IRR) 30.3 %. Nemaska based the calculations on production of 213,000 tons 6%  $\text{Li}_2\text{O}$  concentrate per year at the mining site and processing to 25,000 tons lithium hydroxide and 3,245 tons lithium carbonate per year in its processing plant in Shawinigan.

Nemaska's numbers are by all means conservative. Recently Chinese traders paid US\$ 20,000 per ton and more for ultra-pure 99.99 % lithium carbonate. Similar prices are paid for lithium hydroxide. The calculated production costs are even more interesting. They are far below the costs of previous producers and even below the costs that the previous low-cost leader Albemarle achieved in its Silver Peak mine.

### Modular processing mill at Whabouchi

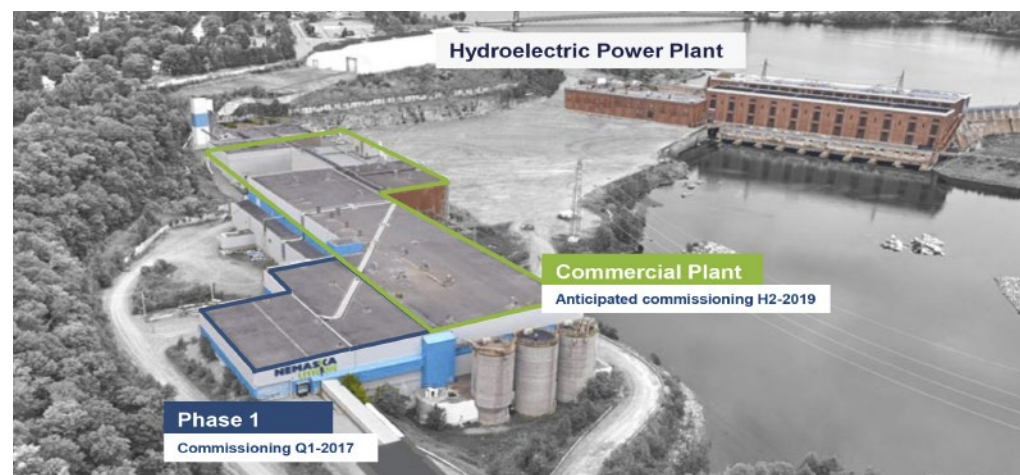
Nemaska Lithium produces high-quality spodumene concentrate since March 2017 with a so-called dense media separation (DMS) modular mill at Whabouchi. Since the beginning of 2017, the company runs a test phase of 12-18 months. For this purpose, the mine representative bulk sample was increased from 29,000 tons to 60,000 tons. In March 2017, Nemaska announced, that it was able to produce several concentrates with over 6%  $\text{Li}_2\text{O}$ , which is been said to be the minimum for the production of battery-grade lithium salts, which are high profitable.

### Hydromet plant in Shawinigan

Nemaska already owns in Shawinigan, Québec, the buildings to process the on the mine site produced 6% spodumene concentrate. Shawinigan is located some 855 km south of the future mine. According to the previous plans the concentrate will be transported by trucks to the rail loading station in Chibougamau and from there by train to Shawinigan. At first glance it might look like a disadvantage, but it turns out to be a big advantage for the company. Nemaska saves not only C\$ 20 million capital cost but also has its own loading siding in Shawinigan as well as direct access to the Saint Lawrence River and thus to the Atlantic Ocean.

Currently, in the building that is owned 100 % by Nemaska the work on phase 1 of the future processing plant is being carried out. The concentrate will be processed over several processing steps in the facility. First a lithium sulfate solution is produced, followed by the separation of all the unwanted elements like copper, iron, aluminum, magnesium and calcium. Subsequently further impurities are removed via ion exchange so that the im-

Nemaska's Hydromet Plant lies directly at the St. Lawrence River, near a hydro power plant  
(Source: Nemaska Lithium)



purities are in the ppb range. After the membrane electrolysis, the produced lithium hydroxide solution will be processed to lithium hydroxide and lithium carbonate. In addition to the phase 1 facility, Nemaska has enough space in the same building for the future commercial processing plant. Phase 1 is in operation since February 2017. The company delivered first material to its partner Johnson Matthey Battery Materials in April 2017. In May 2017 the company confirmed the high quality of delivered lithium hydroxide and paid CA\$2 million.

An additional delivery was made in June 2017 and Johnson Matthey made a final milestone payment of CA\$1 million.

### Offtake agreement with speciality chemicals and sustainable technology company

In May 2016 Nemaska closed an offtake agreement with Johnson Matthey Battery Materials Ltd, a subsidiary of Johnson Matthey Plc a leading company of speciality chemicals and sustainable technology. According to the agreement Johnson Matthey Battery Materials Ltd is paying C\$ 12 million in advance being used for the construction of phase 1 facility in Shawinigan.

In addition, Nemaska entered into an agreement with FMC Corporation according to which FMC will receive from Ne-

maska lithium carbonate samples starting in 2017 and regular lithium carbonate deliveries by April 2019 at the latest. In April FMC made a single payment of US\$10 million for that. Thereby Nemaska has found fixed buyers for almost half of the planned annual production of 28,000 tons.

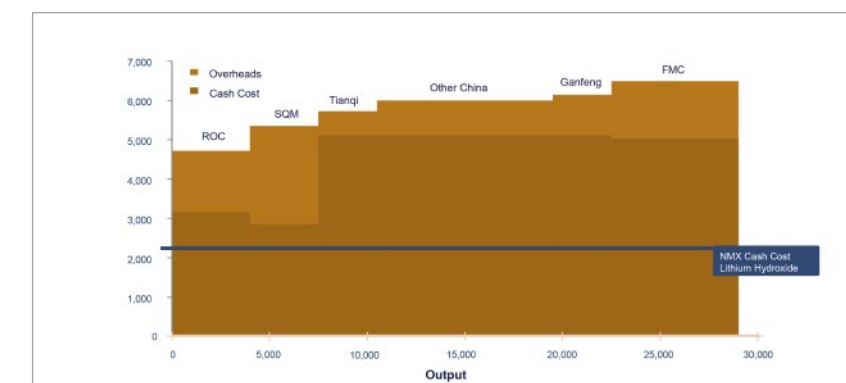
### Financing of ramp-up phase secured

Financing of phase 1 facility is already secured. Of the total amount of C\$ 38 million Johnson Matthey Battery Materials Ltd, Sustainable Development Technologies Canada is contributing C\$ 13 million, Technoclimat Program of the Bureaus de l'efficacité et de l'innovation énergétiques of the Ministère de l'Énergie et des Ressources naturelles C\$ 3 million and C\$ 10 million from an equity financing of Ressources Québec Inc. This demonstrates the big support Nemaska receives from different parties in Québec. Furthermore, Nemaska was able to complete a CA\$50 million financing in June 2017.

### Summary: perfect timing, good start, well financed

Regarding the imminent lithium supply deficit in the coming years Nemaska has

picked the perfect timing for its production project. The construction of phase 1 processing facility seems to be a solid decision of the management which saves a lot of capital and lowers the start-up risk of the commercial production. Fact is that Nemaska wants to bring Whabouchi, the second largest hard rock lithium deposit in the world, to production. The expected life of the mine will be 25 years in a time the lithium boom is just beginning, and prices are quite high. The company has not only a head start but also a technological advantage. No other company in the peer group is that advanced technologically like Nemaska. This together with the secure offtake agreement with Johnson Matthey Battery Ma-



Nemaska has the lowest lithium hydroxide production costs of all competitors  
(Source: Nemaska Lithium)

terials should not present too many problems for Nemaska at the coming financing and mine construction. Nemaska could secure more than CA\$130 million since July 2016.

## Exclusive interview with Guy Bourassa, CEO of Nemaska Lithium

### What did you and your company achieve within the last 12 months?

On the project development front we have made significant progress at both the mine site and the Hydromet chemical plant.

At the mine site, construction has already begun including completion of construction of the:

1. Commercial concentrator building
2. Administrative offices
3. Access roads at the site
4. Contracted for 13 Km of electrical line from Hydro Quebec

We have also completed a bulk sample that saw us produce a 6.3%  $\text{Li}_2\text{O}$  concentrate from our mined ore at Whabouchi using a small modular mill at the site. The average grade of the ore for the bulk sample was 1.75%  $\text{Li}_2\text{O}$  which is higher than our reserve estimate of 1.5%,  $\text{Li}_2\text{O}$ .

At the hydromet plant in Shawinigan, Nemaska Lithium completed construction of the Phase 1 Plant and began producing and shipping lithium hydroxide from that. This will enable us to prequalify our lithium hydroxide and lithium carbonate with customers while we build our full scale commercial facilities.

On the project financing front we raised about \$100M in equity to move the project forward.

### What are the main catalysts for your company within the next 6 months?

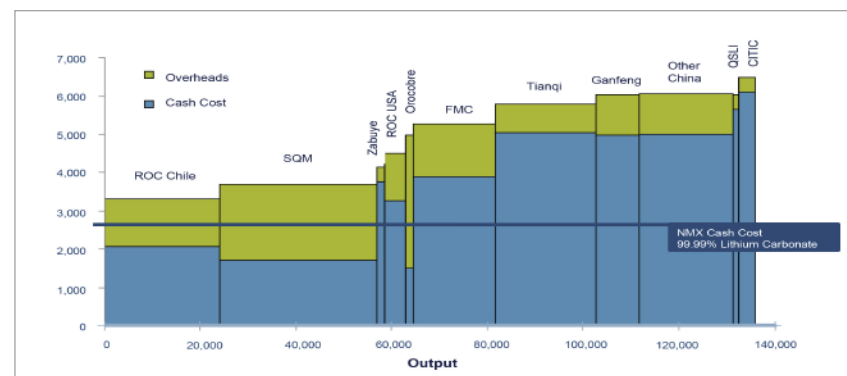
We have two main catalysts in the very near future. First we are working on producing lithium hydroxide from our concentrate using the Phase 1 Plant and receiving customer approval of this material.

The next major milestone is the completion of our project financing. Nemaska



Guy Bourassa, CEO





Nemaska has the lowest lithium carbonate production costs of all competitors  
(Source: Nemaska Lithium)

Lithium is currently evaluating a number of financing alternatives for the project financing. We are in the fortunate position to have a number of excellent financing options on the table at the moment and we are currently weighing the merits of each to select the best scenario for our shareholders.

**What is your opinion about the current conditions of the lithium/cobalt market?**

We remain very bullish on the lithium market. Our view is that the lithium market needs a number of new producers to come into the market with lithium products. Major car manufacturers continue to make important announcements about their plans for electric vehicles models using lithium ion batteries. On the supply side existing producers are adding capacity but are limited in some cases due to geo political risk in the country where they produce and/or technical difficulties. Regardless new entrants into the supply chain are needed to meet existing demand and anticipated future demand. The lithium market is very robust and Nemaska Lithium is well positioned as a new low cost lithium supplier.

## Pure Energy Minerals

### With a new production technology and a strong partner in pole position

Pure Energy Minerals has achieved what many lithium developers, even the big producers, are keen to get but only a few will ever accomplish: an offtake agreement for their own lithium with one of the biggest future producers of lithium ion batteries. Furthermore, the company is also economically in pole position with its new production technology.

### Supply deal with Tesla Motors

On September 16th, 2015, Pure Energy Minerals announced that the company had entered into a conditional agreement with Tesla Motors for the supply of lithium hydroxide over a period of five years. In doing so a fixed purchase price was negotiated. This will enable Pure Energy to include that price for at least a portion of its production in upcoming economic studies. Even though not much is known about the deal, Pure Energy's focus on an environmentally friendly disruptive new processing technology and the short driving time of only 3.5 hours between the Clayton Valley South Project and Tesla's giga-factory could have been decisive factors. In addition, Tesla secured a right to a 20 % share of project financing to build the future mine. This is a customary component of such supply agreements, but it doesn't give the EV company any control or role in the management of Pure Energy's Clayton Valley South Project. Nevertheless, this could be seen as anchor for future project financings.

### Clayton Valley Lithium Brine Project – location and size

The Clayton Valley Project is located directly south of the evaporation ponds of Albemarle's Silver Peak Mine and covered 3,865 hectares, originally. At the end of August 2016 Pure Energy announced the expansion of the Clayton Valley Project. The company signed an option agreement with Cypress Develop-

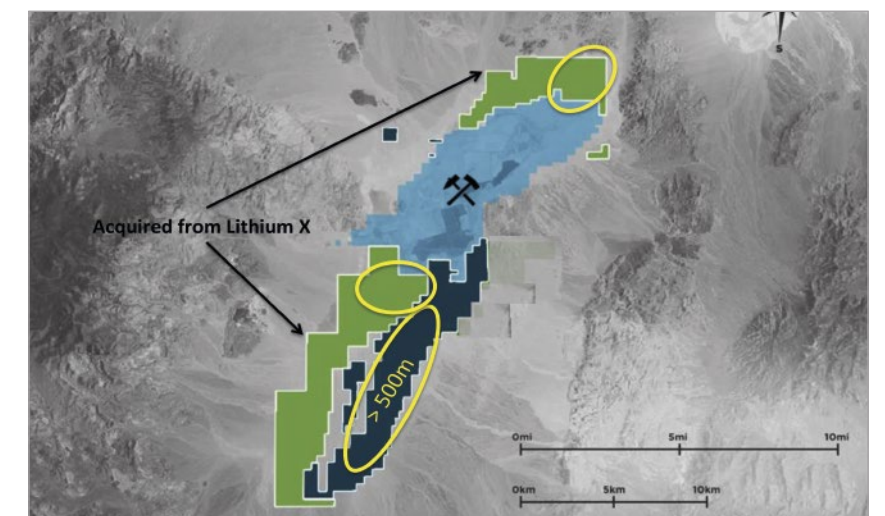


The team of Pure Energy (from left):  
Paul Zink, CFO, Patrick Highsmith, CEO and  
Walter Weinig, VP Projects & Permitting.  
(Source: Pure Energy Minerals)

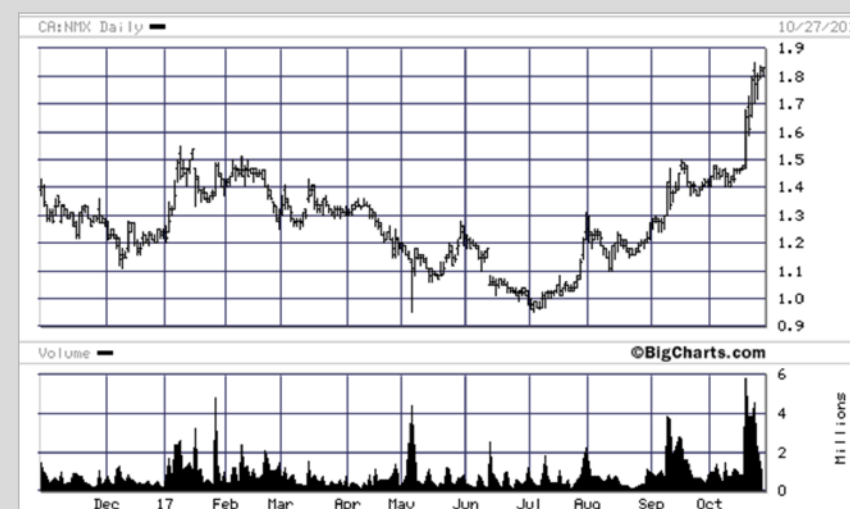
ment for the acquisition of a 70% interest in the claims. The claims border the Clayton Valley Project in the east and cover an area of around 1,520 acres (615 hectares). Cypress has conducted exploration work on the claims during 2016, reporting lithium grades as high as 2,600 ppm.

In addition, Pure Energy staked claims covering 220 acres (some 90 hectares) in the northwestern part of the Valley. In May 2017 the last expansion of the Clayton Valley Project was made to date. Among other things the company acquired license areas covering around 6,000 hectares from competitor Lithium X. These are additional 756 claims west of Pure Energy's original license area and north of Albemarle's production zone. Pure Energy holds about 10,600 hectares in total in the Clayton Valley. The project was renamed to Clayton Valley Lithium Brine Project.

Location of Pure Energy's licenses  
in the Clayton Valley  
(Source: Pure Energy Minerals)



## Nemaska Lithium Inc.



(Source: BigCharts)

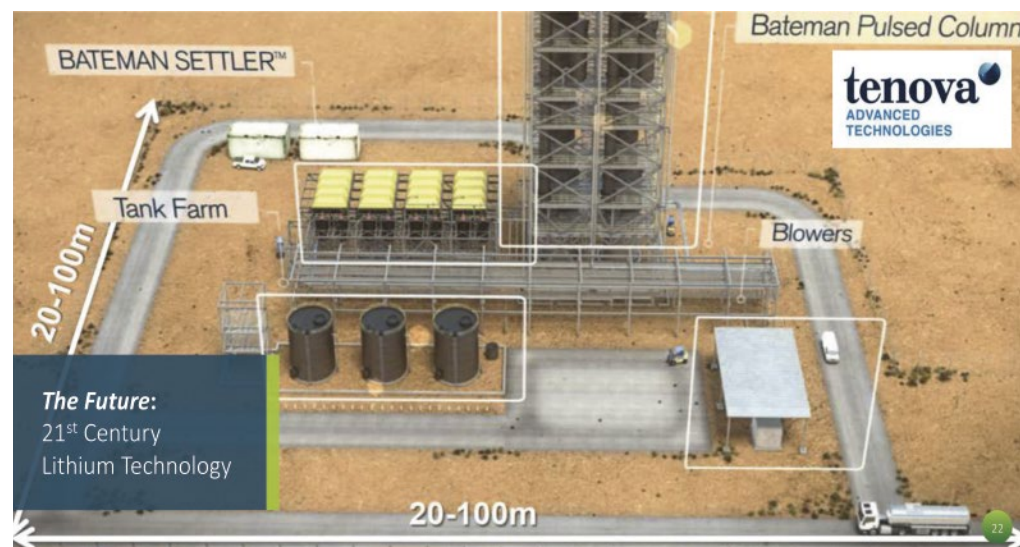
**ISIN:** CA64045C1068  
**WKN:** A1JQUB  
**FRA:** N0T  
**OTCQX:** NMKEF  
**TSXV:** NMX

Shares issued: 376.8 million  
Options: 17.0 million  
Warrants: 54.5 million  
Fully diluted: 448.4 million

**Contact:**  
Nemaska Lithium Inc.  
450, Gare-du-Palais Street  
Quebec, G1K 3X2

phone: 418 704-6038  
fax: 418 614-0627

info@nemaskalithium.com  
www.nemaskalithium.com



Tenova Bateman pilot plant  
(Source: Pure Energy Minerals)

### Clayton Valley Lithium Brine Project – Resource

The Clayton Valley Lithium Brine Project owns a maiden inferred resource containing approximately 218,000 tons of LCE (lithium carbonate equivalent) at an average grade of 123 mg/L lithium.

The magnesium/lithium (Mg:Li) ratio is 2.9:1, among the lowest of all the known lithium brine projects worldwide! In addition, the potash/lithium ratio is around 18.2:1. This is not a problem, rather there is a possibility for future by-product potash, which could improve project economics.

### Clayton Valley Lithium Brine Project – positive PEA

In June 2017 Pure Energy released a Preliminary Economic Assessment (“PEA”) for the Clayton Valley Lithium Brine Project. Based on a 20-year mine life and an annual production averaging 10,300 tons of lithium hydroxide or 9,100 tons lithium carbonate equivalent (“LCE”), estimated average operating cost of US\$3,217 per ton of lithium hydroxide or US\$3,652 per ton LCE and estimated sales prices ran-

ging between US\$9,000 and US\$16,500 per ton, an Internal Rate of Return (“IRR”) of 21% and a Net Present Value (“NPV”) of \$264 million at 8% discount rate was estimated. The initial capital costs are estimated US\$297 million whereof US\$159 million are direct capital costs such as costs for processing plants and infrastructure. The pay-back period would be 4.4 years. The capital costs as well as the production costs are that low because of the new technology used by Pure Energy largely eliminating big evaporation ponds and long evaporation times.

### Clayton Valley Lithium Brine Project – New Technology

While many development companies are still searching for lithium, Pure Energy has already outlined a large resource. And that’s not all, by now the company has started the pre-production phase. The Israeli firm Tenova Bateman Technologies is running numerous tests for Pure Energy in the mini pilot plant that was constructed for this purpose. Among other things, they are testing the separation of the alkaline earth elements (magnesium and calcium) using mem-

branes. In a second step, lithium is recovered into an ultra-pure lithium sulphate solution through solvent extraction. In a third and last step, the lithium sulphate solution is converted into a concentrated ultra-pure lithium hydroxide solution via electrolysis. From here, the ultra-pure lithium hydroxide is crystallized.

The new technology that Pure Energy is testing has the potential to produce lithium with a much lower impact on the environment and with greater efficiency than the conventional technology. The large evaporation ponds that are the signature of the current brine producers consume massive amounts of water, as none of the groundwater is conserved or re-injected back into the ground after lithium recovery. In addition to the visible scars on the landscape, these ponds can impact wildlife and air quality. The process of lithium recovery by evaporation ponds can be quite slow, sometimes requiring up to two years to recover the lithium. The ultimate recovery of lithium from this older technology is also relatively low, in the neighborhood of 50%. Given the projections of future shortages in supply, slow and inefficient lithium processing may put more pressure on the supply chain.

The Tenova Bateman – Pure Energy approach could achieve much higher lithium recoveries, and the footprint of the anticipated industrial plant is much smaller than that of evaporation ponds. Typical of any real-time industrial process, lithium recovery by solvent extraction should be much faster than evaporation technology – hours vs months.

In December 2016, Pure Energy announced a large milestone. The company was able to recover 85% of the lithium out of the brine. Furthermore, the company was able to produce battery-grade lithium hydroxide monohydrate with the help of the mini pilot plant.

### Clayton Valley Lithium Brine Project – next steps

The next steps are the permitting of a high-tech pilot plant which will be commissioned by the end of 2018 the latest. The company is also preparing a feasibility study with expected completion in the middle of 2019. Afterwards the financing and construction of the actual facilities can begin. The production start is realistically expected in the middle of 2021. At the same time the company is enthusiastically working on the receipt of the necessary environmental and production permits.

### Terra Cotta Project in Argentina

In March 2017 Pure Energy announced that the company has secured the Terra Cotta concession comprising 13,000 hectares on the Pocitos Salar in Argentina. The Pocitos Salar, Salta region is directly accessible by Highway 17 and has access to a gas pipeline and rail line. For the acquisition of a 100% interest in Terra Cotta, Pure Energy has to pay in installments US\$ 4.0 million and issue 6 million of its shares over a period of 24 months. Historic samples contained between 100ppm and 300ppm lithium as well as between 1,000ppm and 7,000 ppm potassium. In July 2017, the company started with the initial exploration work.

### CEO Highsmith as lithium mastermind

At the center of the whole success story is Pure Energy’s CEO, Patrick Highsmith. He is said to be the mastermind of the company because he has worked for several big mining companies like Rio Tinto, BHP Billiton, and Newmont, but he also has experience in the lithium industry as a co-founder and CEO of Lithium One. During his career of over



25 years, Mr. Highsmith has evaluated and worked on more than 250 projects and helped acquire and develop the best of these. His strength is primarily the successful guidance of company teams to major engineering and development milestones. He advanced Galaxy Resources' Sal de Vida Lithium Brine Project from discovery to a successful pre-feasibility study and company sale. Investors hope he can have similar success with Pure Energy during the coming months.

### Summary: with seven-league boots towards high-tech production

Pure Energy's offtake agreement with Tesla was a highlight setting the anticipated lithium boom rolling. Backed by a partner like Tesla who seeks to buy lithium and potentially help finance the mine

development, Pure Energy can not only work well but also generate further interest in its project as well as in the company's shares. Of all the lithium development companies active in the Clayton Valley Pure Energy is the most advanced and should have the best chances for its own production. But there is always the possibility of a takeover by a major lithium company. Above all Albemarle could have an increased interest in a combination of its deposit with Pure Energy's Clayton Valley Brine Project.

### What are the main catalysts for your company within the next 6 months?

The main catalyst for Pure Energy Minerals over the next 6 months are the engineering, permitting, and construction activities on a new high-tech pilot plant at Clayton Valley. Other important catalysts include the first drill holes on the new Terra Cotta Project and the return of the drills to Clayton Valley.

### What is your opinion about the current conditions of the lithium market?

The lithium market right now is the hottest macro I have seen for any commodity, with the possible exception of gold in 2011! The reasons are quite different from those that drove gold, however. As the electrification wave for vehicles gains real momentum, supply is having trouble keeping pace with demand. The major producers have announced major expansion plans, but they face head-

winds that often aren't discussed. Junior companies built the last three new lithium mines, but the junior space is getting so crowded that some investors are understandably confused.

There has been a real change in the way EV's are viewed by governments, consumers, and manufacturers. The battery makers and lithium suppliers should be trembling at the thought of internal combustion vehicles being banned in countries like China, the UK, and France over the next two decades. This kind of momentum changes the world, and it will certainly tax long term lithium supply.

Taken together, what does all this mean to us? Lithium prices are likely to continue to be well supported, which is excellent incentive for us to find and develop more lithium capacity.



Patrick Highsmith, CEO

## Exclusive interview with Patrick Highsmith, CEO of Pure Energy Minerals

### What did you and your company achieve within the last 12 months?

Pure Energy Minerals has had a tremendous year, with major achievements on three fronts. At our Clayton Valley Project in Nevada, we delivered a major metallurgical test program, publishing the first flowsheet for our new process technology. We also more than doubled the size of the project to about 10,000 hectares. We ended our financial year in June by announcing positive results from the maiden PEA. We also added a second major lithium project with the acquisition of the Terra

Cotta lithium brine project in Salta, Argentina. Technical work has just commenced at Terra Cotta so we expect to start drilling during the northern Winter. We made some important team changes, graduating our board to include deep lithium executive, legal, transactional, and accounting expertise. We also enhanced our management team with a new Vice President and CFO. Walter Weinig has exactly the set of skills we need to manage these growing projects, while Paul Zink is a world class finance-trained CFO with both Wall Street and mining experience.

**ISIN:** CA74624B2057  
**WKN:** A111EG  
**FRA:** AHG1  
**OTC:** PEMIF  
**TSXV:** PE

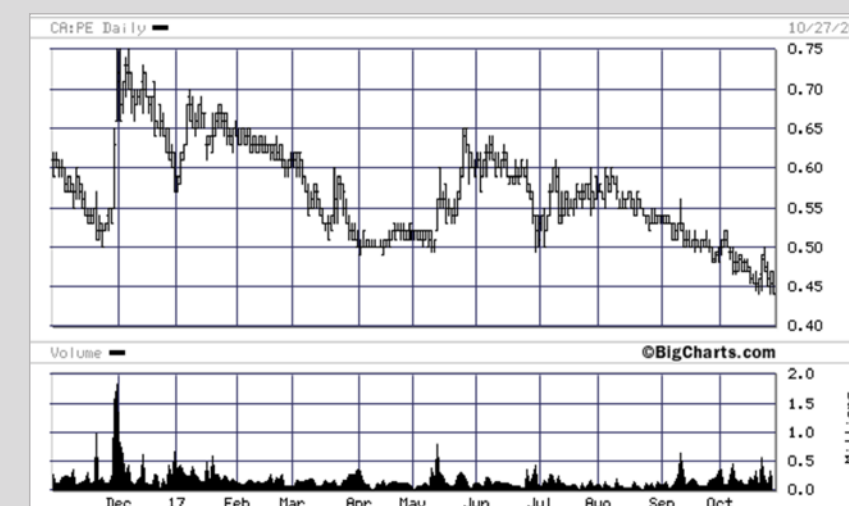
Shares issued: 119.8 million  
Options: 5.2 million  
Warrants: 17.1 million  
Fully diluted: 142.1 million

**Contact:**  
Pure Energy Minerals Ltd.  
355 Burrard Street  
Suite 1780  
Vancouver, BC, V6C 2G8

phone: +1 604 608 6611

info@pureenergyminerals.com  
www.pureenergyminerals.com

## Pure Energy Minerals Ltd.



(Source: BigCharts)



# Standard Lithium

## With new technology cost-effectively on success course in the USA



Standard Lithium is a Canadian resource developer specialized in lithium projects in the USA. The company is using new technologies to extract relatively environmentally friendly lithium which shortens the appropriate permitting processes and gives the company an additional temporal advantage.

### Bristol Lake Lithium Project – Location

Standard Lithium's current flagship project is called Bristol Lake located in the Mojave region of San Bernardino County near the town Amboy in southeastern

California. Amboy is situated on the old Route 66 near the Interstate Highway 40. The distance to Las Vegas is 200 km and 330 km to the port of Los Angeles. An active railroad line runs within 5 km of the project.

### Bristol Lake Lithium Project – Production and Resources

Standard Lithium secured a license area covering over 25,000 acres with several acquisitions within the Bristol Lake area by August 2017. The majority of the licenses are from National Chloride Company. This company and some others are producing chloride from the Bristol Lake salt lake, which covers around 155 square kilometers, for more than 100 years. Bristol Lake is a typical salt lake with a significant lithium portion that was not part of the production strategy to date. Historic drill holes of the USGS (United States Geological Survey) produced brines with 110 mg/l lithium. The USGS is a scientific agency in a division of the U.S. Department of the Interior. The USGS is the most important institution for official cartography in the USA.

### Bristol Lake Lithium Project – Exploration and Production potential

The fact that chloride is produced for more than 100 years makes Bristol Lake the salt lake with the best infrastructural development in North America. At the same time the project has a high exploration potential for the resource lithium. The previous producers mined chloride only to date and ignored the significant lithium portion. This results not only in a high exploration potential but also in a high production potential for lithium and possible by-products.



Bristol Lake evaporation basins  
(Source: Standard Lithium)

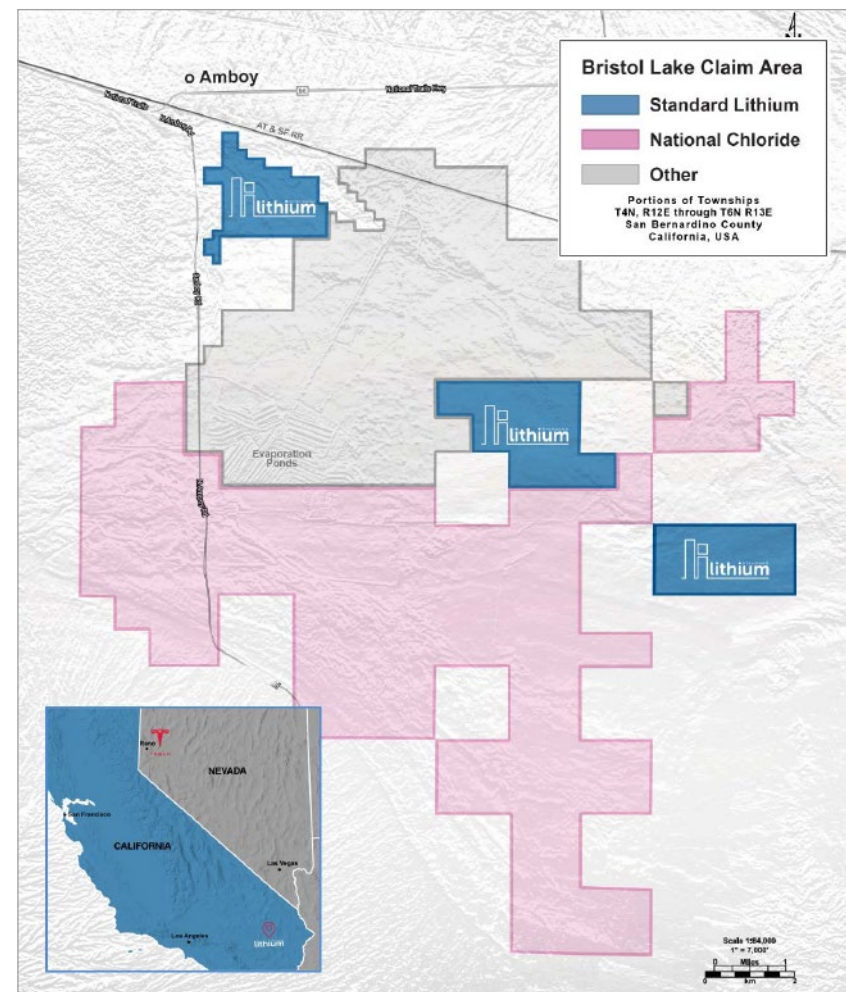
### Proven management team wants to rock the lithium sector!

Standard Lithium's most important asset is its two leading figures in particular, who are backing the company. CEO Robert Mintak was among other things the co-founder of Pure Energy Minerals, the company which secured the first offtake agreement with Tesla Motors. Under Mintak's leadership, Pure Energy Minerals was recognized as the top mining company of 2016 in Canada. Mintak is regarded as a lithium pioneer which makes him to the absolute top lithium expert worldwide. President and COO Dr. Andy Robinson most recently served as COO for Pure Energy Minerals. He was responsible for the first lithium resource in accordance with NI 43-101 guidelines in North America. Therewith he introduced entirely new methods for sampling, exploring and assessing lithium brine deposits. In addition, he developed entirely new techniques and production approaches for the production from lithium brine deposits.

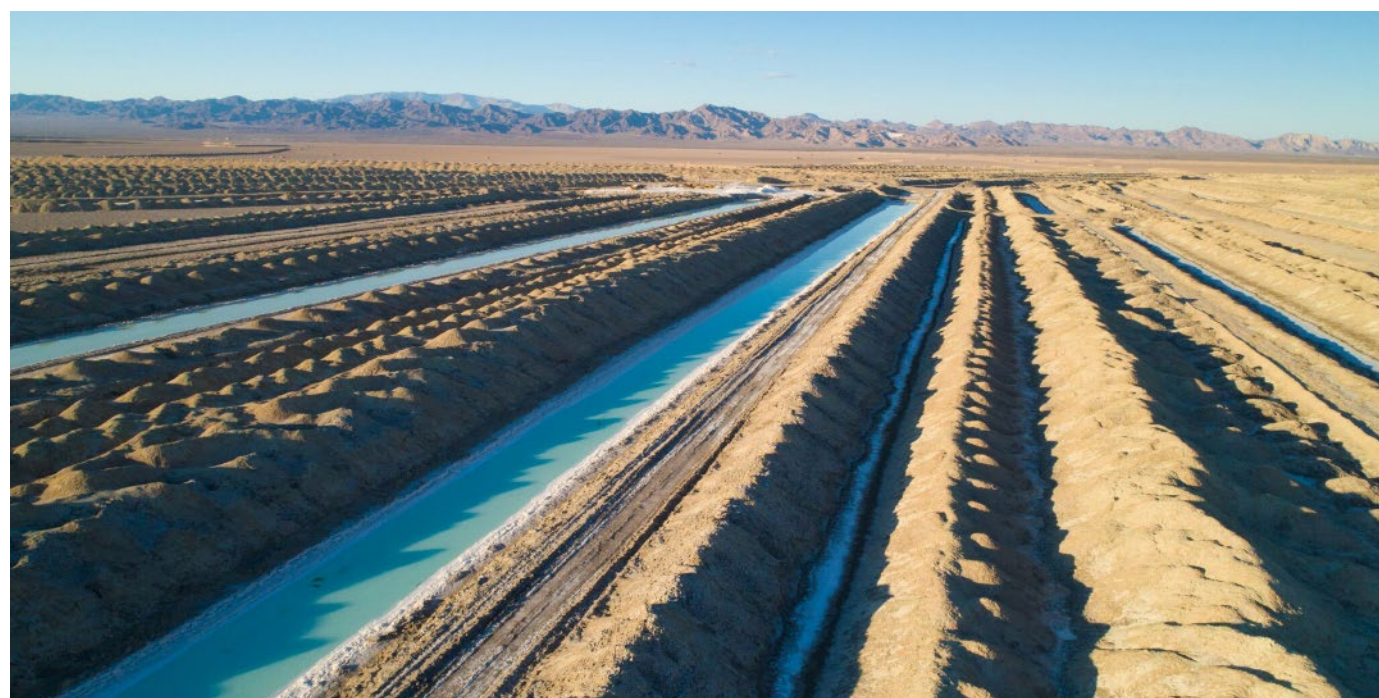
### Bateman Technology leads to extreme efficiency improvement

The Bateman Technology is an important achievement Mintak and Robinson brought from Pure Energy Minerals. This technology removes the alkaline elements (magnesium and calcium) using membranes. In a second step lithium is recovered in an ultrapure lithium sulfate solution by solvent extraction. In the final third step the lithium sulfate solution is transformed into a concentrated, ultrapure lithium hydroxide solution by electrolysis. Ultrapure lithium hydroxide will crystallize from this solution. This new technology, tested by Pure Energy, has the potential to produce lithium with much less environmental impacts and a higher efficiency than conventional, relatively inefficient evaporation processes. The large evaporation ponds, that are so characteristic for the current brine producers, need huge amounts of water because the groundwater is neither reused nor pumped back into the ground after the lithium extraction. Besides the visible scars in the landscape

Standard Lithium's Bristol Lake licenses  
(Source: Standard Lithium)







Evaporation ponds at Bristol Lake  
(Source: Standard Lithium)

these ponds have a negative impact on the fauna and air quality. The process of lithium extraction with evaporation ponds is very slow and takes up to two years until the first lithium production. Ultimately the lithium extraction using this older method is relatively inefficient with an efficiency grade of 50%. Given the predictions of a future supply shortage the slow and inefficient lithium extraction could put higher pressure on the supply chain. The Tenova Bateman Concept could achieve much higher lithium extraction rates and improved qualities up to battery grade material and the size of the necessary production facilities is much smaller than the size of the evaporation ponds. Typical for a real-time industrial process, the lithium extraction process should be much faster by solvent extraction rather with evaporation technology – hours instead of months. And: Lithium hydroxide or lithium carbonate can be produced according to customer specifications without an additional refining step like the old method. This is an enor-

mous cost advantage compared to the evaporation method.

### Additional project acquisitions are planned

Standard Lithium has an extensive database of other potentially high-grade lithium projects in the USA which are combined consistently for additional possibilities. The company is still in an acquisition phase which should support the company to grow and increase its value. Thereby projects are in the focus which will allow the company to begin the lithium production as soon as possible and at low expenditures. The first acquisition is an area covering 30,000 acres in the Smackover Formation area in Arkansas. In August 2017 Standard Lithium signed a letter of intent with a NYSE listed company. Standard Lithium will receive the appropriate lithium brine exploration and production rights for US\$500,000.

### Summary: technological progress is the key!

Standard Lithium is at the moment a pure grab bag. The Bristol Lake Project is attractive due to its excellent infrastructure and certain purity which is associated with the almost complete removal of the disturbing chloride. Another reason, the second project in Arkansas is shrouded in mist. Given the Smackover Formation one can conclude that this project must be an oil project. It can be speculated that Standard Lithium wants to explore a (former) oil project for lithium resources and extract them. Such ventures exist already and seem to be promising. All in all, Standard Lithium is an early stage chance with an important advantage. The management is unique and ahead of

its time. The lithium brine deposits can apparently be exploited unrivalled with the help of the Bateman Technology. This is an aspect that will bring some positive surprises to Standard Lithium in the coming months.



(Source: Standard Lithium)

## Exclusive interview with Robert Mintak, CEO of Standard Lithium

### What did you and your company achieve within the last 12 months?

Standard Lithium is a newly minted lithium development company, I joined the Company as CEO this past spring and Dr. Andy Robinson joined the Management team and Board as COO and President right afterwards. We are focused on US projects where production can be brought online quickly thereby positioning the Company as a large geopolitically secure developer of high-value, production ready lithium brine assets. In early May we announced the signing of an option agreement with permitted brine producer National Chloride on our Bristol Dry Lake project located in the Mojave Desert in San Bernardino, California. Working with National Chloride's

extensive permitted operations, Standard Lithium has been able to immediately begin lithium brine process testing work at three campuses across North America. In September we grew the project size by almost 50% and it now sits at approximately 25,000 acres of placer mining claims and private property. In late August we inked an LOI with a NYSE listed company for 33,000 acres of brine leases in the highly productive Smackover formation. The Smackover Formation which extends through Texas, Arkansas and Louisiana, has produced billions of barrels of brines over the last 80 years from an extensive and extremely well characterized aquifer. Historical data shows >300+ mg/L lithium in brines.



Robert Mintak, CEO



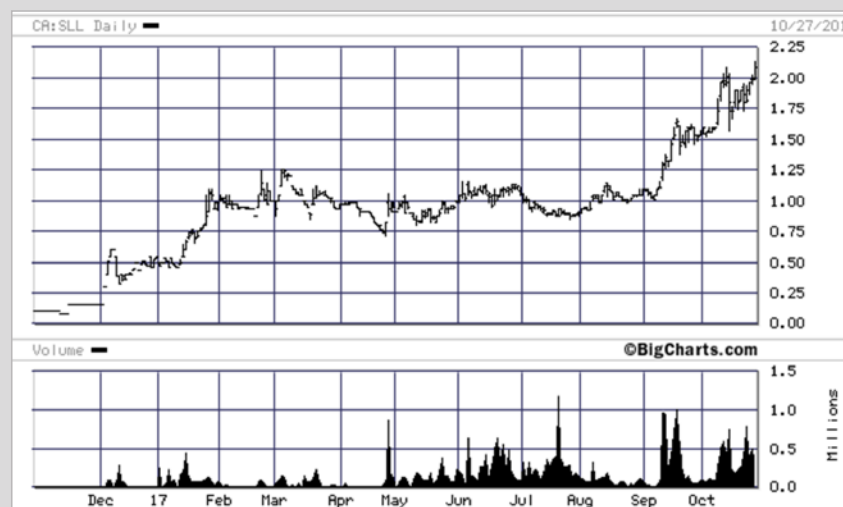
**What are the main catalysts for your company within the next 6 months?**

This past June we closed an oversubscribed financing for gross proceeds of over \$7.4 million dollars. So, we are fully funded for our current exploration programs and there are many reasons to follow our stock. In terms of near-term catalysts, news about a definitive agreement regarding our Smackover project is on the near-term horizon. We should have initial results from the Bristol Lake brine processing work that is underway should be coming before the end of the year and a NI 43-101 Technical Report should follow. After that Technical Report, we should be able to deliver a maiden mineral resource estimate. Additionally, we have ongoing new project acquisitions under review and if an opportunity that meets most or all of our critical parameters we are well funded to execute on one of these.

**What is your opinion about the current conditions of the lithium/cobalt market?**

In September Volkswagen said it will spend more than €50 billion (\$60 billion) on battery cells as it pushes to electrify all 300 models in its range by 2030. France, the UK, and more recently Scotland, all announced efforts to ban petrol and gas-powered cars in favor of electric vehicles. Now the Chinese government is also reportedly considering a deadline to go all-electric, which would virtually be the end of the internal combustion engine.

## Standard Lithium Ltd.



(Source: BigCharts)

**ISIN:** CA8536061010  
**WKN:** A2DJQP  
**FRA:** S5L  
**TSXV:** SLL

Shares issued: 48.9 million  
Options: -  
Warrants: 5.0 million  
Fully diluted: 53.9 million

**Contact:**  
Standard Lithium Ltd.  
888 – 1100 Melville St.  
Vancouver, BC V6E 4A6

phone: +1-604-409-8154

info@standardlithium.com  
www.standardlithium.com

## Wealth Minerals

### Largest land package of all lithium juniors in Chile's top-class Salars arouses desires

Wealth Minerals is a Canadian lithium development company based in Vancouver and Santiago de Chile. Since February 2016 the company acquired the largest land package of all lithium juniors active in Chile. The majority of the acquired areas are located in Salars that are among the 15 highest grade Salars in Chile.

#### Atacama Salar

Wealth Minerals' Atacama project is located in the northern part of the Atacama Salar which is currently the highest grade and largest producing brine deposit worldwide. It produces approximately one third of global lithium output from two production facilities operated by Sociedad Química y Minera ("SQM") and Albemarle. The Atacama Salar possesses a very high grade of both lithium (1,840mg/l) and potassium (22,630mg/l), has a high rate of evaporation (3,200 mm per year) and extremely low annual rainfall (15mm average per year). These characteristics make Atacama's finished lithium carbonate easier and cheaper to produce than in similar projects of its peer group. A key factor is evaporation time, and due to the very high evaporation rate in the Atacama Salar, it is very short. Another site advantage is the connection to Highway 23.

#### Wealth Minerals' Atacama Project

In November 2016 Wealth Minerals signed an option agreement with Atacama Lithium SpA, in which it has been given the right to acquire a 100% royalty-free interest in 144 exploration concessions covering in total 46,200 hectares in the northern part of the Atacama Salar. For that deal the company paid and is paying in several installments a total of US\$ 14

million and issued the vendor 15 million of its shares. The concession area borders the licenses of BHP Billiton, SQM and CORFO a Chilean state-owned company. The two production plants of SQM and Albemarle, which produce 62,000 tons of lithium carbonate equivalent (including potassium) per year, are located on CORFO's area, 15km south of Wealth's concessions.

Although Wealth Minerals' Atacama project is at the very beginning of the exploration phase the fact that it borders two of the three lithium mines with the lowest production costs gives a hint of the huge potential. Wealth has started initial field work aiming at the drill permits. In the next step the company will drill test the 400 to 600m thick brine bearing layers of the Salar, initially 2,000m are planned. The company expects several brine-hosting aquifers with significant lithium concentrations possible near the surface. SQM and Albemarle produce the lithium from a depth of only 40m whereby the Salar has a depth of up to 975m. Therefore, Wealth will explore the southeast part of the Atacama project for lithium bearing horizons to a depth of 40 to 600m.



Wealth Minerals' Atacama project is located in the northern part of the Atacama Salar which is currently the highest grade and largest producing brine deposit worldwide. (Source: Wealth Minerals)





Location of Wealth Mineral's top-class projects in eastern Chile  
(Source: Wealth Minerals)

## Laguna Verde Project

In December 2016 Wealth Minerals signed a letter of intent to acquire the 100% royalty-free Laguna Verde project. The project comprises 23 concessions for a total of 2,438 hectares and is located in northern Chile adjacent to Highway 60 and only 15 km west of the border with Argentina. Wealth Minerals is paying US\$ 4 million for the acquisition of Laguna Verde and is issuing 5 million of its shares to the vendor. Laguna Verde hosts a historic inferred resource of 512,960 tons of lithium carbonate equivalent and 4.223 million tons of potassium chloride equivalent. Laguna Verde is actually a lake with water depth of only 0.5 to 6m. To date 78 samples in total were taken averaging 213mg/l lithium and 4,881mg/l chloride.

In April 2017 Wealth Minerals proved by means of a bathymetric survey that the maximum depth of the lake is 6.0m with a mean depth of 3.5m.

Radiometric and geophysical surveys revealed that the lake basin has a depth of 400m up to 1,000m. These surveys also suggested the presence of saline groundwater (potential brine) at a depth of 200

to 300m. Another brine horizon could be present at a depth of more than 400m in the northeastern area. These discoveries resulted in Wealth Minerals securing additional adjoining concession areas covering 6,300 hectares.

## Trinity Project

The Trinity Project is comprised of three independent projects, Aguas Calientes Norte, Pujsa and Quisquiro, which are located in northern Chile within a radius of 15km therefore are combined in a single project. Trinity is located 100km east of the Atacama Salar.

## Salar de Aguas Calientes

In July 2016 Wealth Minerals signed an option agreement to acquire a 100% royalty-free interest in the Puritama concessions 1 to 8, located in the Salar de Aguas Calientes. The concessions cover an area totaling 2,000 hectares. Until completion of the transaction Wealth Minerals is paying in total US\$ 2.65 million. Historic sampling during the 1990s indi-

cate a lithium concentration of up to 169mg/l. Follow-up explorations, which were carried out in 2015 found lithium concentrations of 205 mg/l to 290 mg/l. Access to the project area is via Highway 27 giving access to the port of Antofagasta.

## Salar de Pujsa

Also in July 2016 Wealth Minerals signed an option agreement to acquire a 100% royalty-free interest in the Pujsa concessions 1 to 7, located in the Salar de Pujsa. The concessions cover an area totaling 1,600 hectares. Until completion of the transaction Wealth Minerals is paying in total US\$ 2.65 million. The Chilean government authority, Sernageomin (Servicio Nacional de Geología y Minería), classified the Salar de Pujsa as one of 15 high-grade Salars in Chile. Independent exploration work suggests lithium concentrations of 220 mg/l to 620 mg/l. The Project is also accessible via Highway 27.

## Salar de Quisquiro

Wealth Minerals signed an option agreement to acquire a 100% royalty-free interest in the Quisco concessions 1 to 9, located in the Salar de Quisquiro. The concessions cover an area totaling 2,400 hectares. Until completion of the transaction Wealth Minerals is paying in total US\$ 2.6 million. The 15 best Salars in Chile are classified in three tiers 1 to 3. Quisquiro, together with Atacama, Maricunga, Pedernales and La Islain are in the highest category Tier 1. Salars in the top category have lithium concentrations between 423 and 1,080mg/l. The Project is also accessible via Highway 27. The northern Part of the Salar is owned by SQM, which could be an indication that this could be indeed a top-class lithium location.

For 2017 Wealth is planning a sampling program to identify near surface drill targets.

## Five Salars Project

In April 2017 Wealth Minerals announced the closing of a letter of intent for the acquisition of the Five Salars Project. This is a group of five projects: Ascotan, Piedra Parada, Huasco, Lejia, and Siglia covering 10,500 hectares in total in northern Chile. Wealth Minerals has made staged overall payments of US\$8 million and issued 8 million company shares for the five projects. The Piedra Parada Project which borders the "Seven Salars Project" in the east is of particular importance.

## Seven Salars Project

In 2017 Wealth Minerals shifted its focus to the Seven Salars Project. In August 2017 the company announced the signing of a binding letter agreement to acquire 49% of the issued and outstanding shares of the company San Antonio Sociedad Contractual Minera which holds a 50% interest in the Seven Salars in northern Chile. The project has a total area of 39,400 hectares. The remaining 50% of the Seven Salars are owned by Talison Lithium which is controlled by Albemarle and Tinanqui Lithium. Even though Wealth Minerals owns an indirect overall interest of 24.5% in the Seven Salars it is still a top deal because one of these Salars, La Isla, is considered as Chile's second largest lithium deposit. Samples from 68 shallow drill holes contained average lithium grades of 863 mg/l. There is the possibility that La Isla will be brought to production quickly, especially with a strong company like Albemarle in the background. In addition, this could lead to synergies for the development of Piedra Parada.

## Mastermind Henk van Alphen

Wealth Minerals' CEO is Henk van Alphen, considered being the absolute mining expert. Van Alphen has over 30 years of experience in the mining industry. During that time, he held key positions, among other things, at Corriente Resources, Cardero Resources, Trevali Mining, Balmoral Resources and International Tower Hill. During his career he raised over 1 billion dollars in financings for several companies. Van Alphen is an absolute mastermind and leaves nothing to chance, which can be seen as he always acquires a 100% interest in royalty-free projects.

## Summary

Wealth Minerals is preparing to become one of the most important lithium players in South America – if no other company will take it over before. Because the more than 110,000 hectares in some of the top-class Salars in Chile should arouse desires by the big players. Though, the success story of Wealth Minerals is just beginning. After all, the company carried out only sporadic exploration work to date. This will change during the coming months and an increasing news flow can be expected. Looking at the individual projects, the majority of which is considered the best in Chile, expectations are for high grade test results.

world class asset, and Wealth plans to advance this asset to production in conjunction with its JV partners.

### *What are the main catalysts for your company within the next 6 months?*

Over the course of the next six months, Wealth is firmly entering the next stage of its development. Atacama is the core asset, and the Company is working to collect geophysical data to establish targets for drilling slated to begin by the end of the year. At the corporate level, we are working with potential partners to best judge how we can add value to Wealth's assets to the benefit of shareholders. This means cooperating with our JV partners Talison on the 7 Salars project to get Salar de la Isla into production, as well as working with strategic players at the Wealth Minerals' level to bring in capital and know-how.

### *What is your opinion about the current conditions of the lithium market?*

There is a paradigm shift happening right now. The way we humans use energy, store it, and think about it is being transformed by new technology and applications. Hydrocarbons are a store of energy, and they have powered the world for over a century. However, to release energy from hydrocarbons it needs to be burned. The burning process causes pollution, energy loss and still requires a mechanism to get that released energy to do a job. The question has long been, how do we get energy to be immediately available when we want it without the downside of burning? Lithium is the answer!



Henk van Alphen, CEO

## Exclusive interview with Henk van Alphen, CEO of Wealth Minerals

### *What did you and your company achieve within the last 12 months?*

Wealth Minerals started in foray into the lithium sector at the beginning of 2016, and it was not until the summer of 2016 when things started to gain momentum. We first picked up the assets that comprise the Trinity Project. These brine assets (dried lake bed called „salars“) are ranked as top lithium salars by the state geological survey and the private SignumBox lithium consultancy. Wealth then acquired a huge land position in the Atacama salar, which is our core asset and is truly world class. The Atacama salar is the largest salar in the world under commercial production and it is by far the highest grade. After Trinity and Atacama, we acquired the Laguna Verde

project, which has a significant amount of historical work done. Interestingly, this salar still has a pool of brine at surface. After Laguna Verde Wealth picked up the 5 Salars and 7 Salars projects, which give the Company a leading position in the Chilean lithium sector and a front row seat for the anticipated consolidation of assets. The 5 Salars project has licenses within five separate salars, shared with other players in the sector, including CODELCO, Freeport McMoran and BHP. The latest acquisition is the 7 Salars project, which is a 24.5% stake in a JV with a group of Chilean businessmen and Talison, the world's leading lithium producing company. One salar in the 7 Salars project is Salar de la Isla, and it has an average grade of brine samples taken in 2011 of 863 ppm lithium, making it a

**ISIN:** CA9468852095  
**WKN:** A12C3D  
**FRA:** EJZN  
**TSXV:** WML

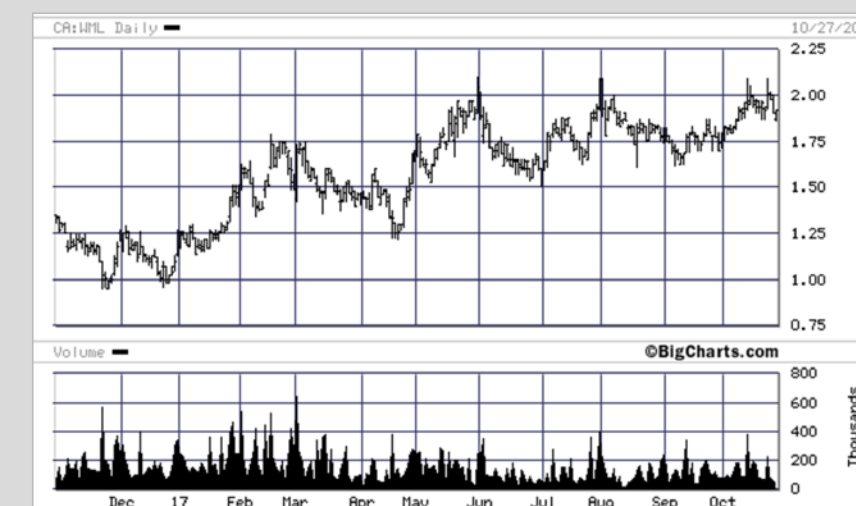
Shares issued: 90.9 million  
 Options: 7.8 million  
 Warrants: -  
 Fully diluted: 98.7 million

**Contact:**  
 Wealth Minerals Ltd.  
 2300 - 1177 West Hastings Street  
 Vancouver, British Columbia, V6E 2K3

phone: +1-604-331-0096  
 fax: +1-604-408-7499

info@wealthminerals.com  
 www.wealthminerals.com

## Wealth Minerals Ltd.



(Source: BigCharts)



# First Cobalt

## With concentrated power to become Canada's leading cobalt producer



Trent Mell, CEO

First Cobalt is a Canadian development company getting ready to become Canada's leading cobalt producer. To achieve this First Cobalt will merge with two cobalt explorers that own the majority of the licenses in the historic cobalt camp in the Canadian province of Ontario. In addition, combined they own several fully licensed production, processing and refining facilities on site.

### Merger of three leading cobalt development companies

First Cobalt is one of three leading cobalt development companies which will merge to become a large cobalt developer in the coming weeks and months. The appropriate permitting and merger processes were commenced. The other two companies are CobaltTech Mining and Cobalt One Limited. After the merger a listing at the ASX in Sydney will take place in addition to the listing in Canada. The company will have about 200 million issued and outstanding shares with a market cap of around CA\$150 million and continue to trade under the name First Cobalt.

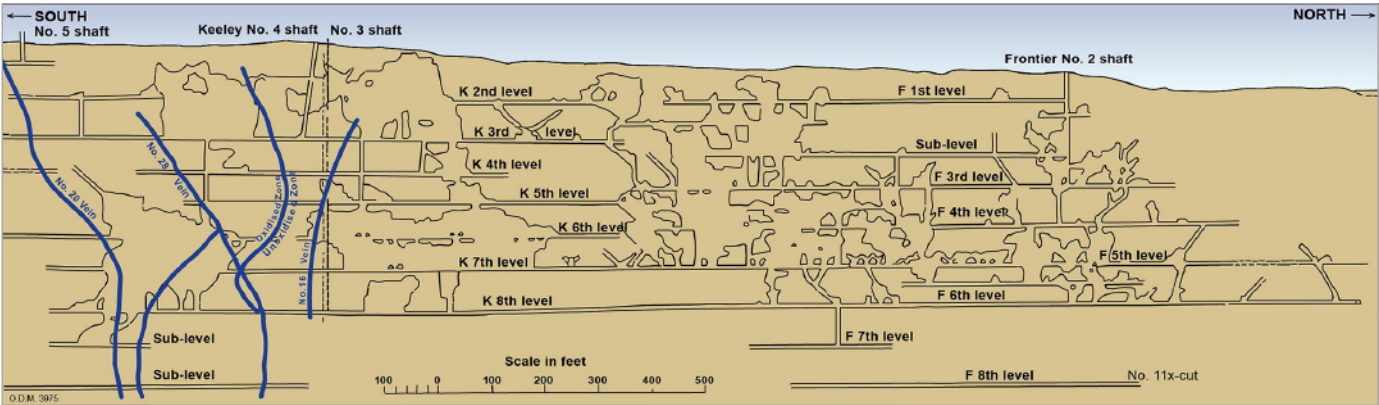
The fusion of all three cobalt explorers will form a leading and powerful cobalt-company in Canada (Source: First Cobalt)

### Single assets of the three companies

All three companies have significant land packages in Ontario's cobalt camp which at merger will complement each other perfectly.

### First Cobalt

First Cobalt brings the Keeley-Frontier Project to the merger. This is an option to acquire 100% of more than 50 past producing mines. The company will pay CA\$1.8 million in cash and invest CA\$3 million in the exploration and development of the licenses over a period of 3 years. There will be no obligations for the company after, except a 2% Net Smelter Royalty of which the company can repurchase 50%. This transaction will provide the company with a real treasure pit. The main mines Keeley and Frontier alone produced in total 3.3 million pounds of cobalt and 19.1 million ounces of silver as well as nickel and copper from 1907 to 1965. Keeley-Frontier has the best cobalt/silver ratio of all past producing mines in Ontario's cobalt camp. In the past, for one pound of cobalt around 5.8 ounces of silver were mined. The existing significant silver veins are also border-



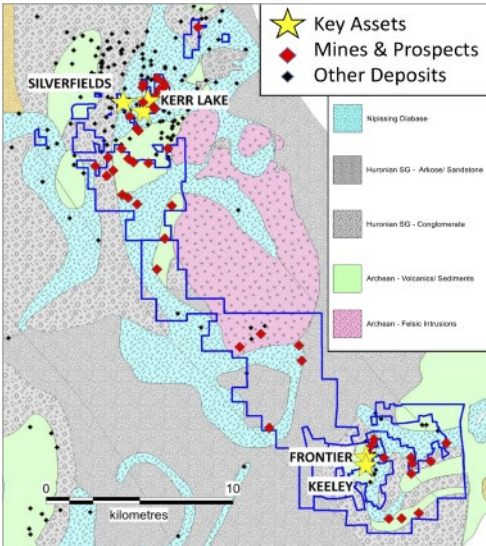
Mine plan of the former Keeley-Frontier Mine (Source: First Cobalt)

red by significant base metal anomalies and known cobalt rich areas were not mined in the past. The current drill program that was started in August 2017 is comprised of 7,000m and focused on the former Keeley-Frontier mine as well as surrounding areas. Another focus is on the former Bellellen Mine that produced among other things 12.3 tons of ore with incredible 9.25% cobalt and 11.55% nickel in 1943. The company continues to drill in the area of the former mines Haileybury, Frontier 1 and Woods Extension. All 7 drill targets cover a distance of 2km that was mapped already. Geophysical surveys were completed in this area. Samples from the area of the former Bellellen Mine, whose results were published in September 2017, contained up to 3.76% cobalt, 195 gpt silver, 0.93% nickel and 1.55% copper. At the end of September 2017 even better results were received from blasted material within the mine. The samples contained up to 9.22% cobalt, 5,330 gpt silver, 5.15% nickel and 0.91% copper. For comparison: the historic cobalt grades in the main Woods vein averaged 0.8% cobalt with a bit higher cobalt grades in silver concentrates. In 2017 the company released an initial independent NI 43-101 Technical Report for its licenses.

Keeley-Frontier has an unparalleled infrastructure including several shafts and several thousand meters of adits which provide the potential for underground drill programs.

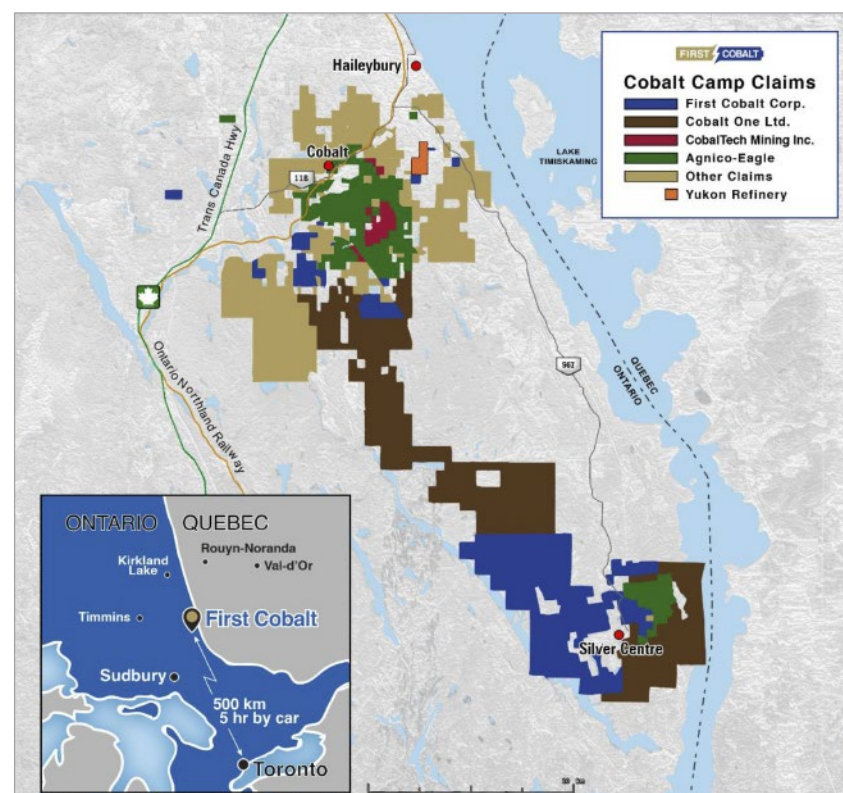
### Cobalt One

Cobalt One brings to the merger the Silverfields Project (7,200 hectares). In total 18.2 million ounces of silver plus cobalt, nickel and copper were produced from several mines within the project in the past. In addition, the company owns an 80% interest (with an option for 100%) in the Cobalt



The combined license areas contain several former mines and potential high-grade deposits (Source: First Cobalt)

Pro Forma Capital Structure				
	FIRST COBALT	CobaltOne	COBALTECH	NEWCO
Ticker	TSXV:FCC	ASX:CO1	TSXV:CSK	TSXV:FCC
Share price	C\$0.76	A\$0.11	C\$0.16	C\$0.76
Basic shares outstanding (M)	57.3	696.4	78.5	194.8
Warrants (M)	3.6	-	-	3.6
Options (M)	5.2	89.8	10.0	8.1
FD shares outstanding (M)	66.1	786.1	88.5	206.5
Avg. daily volume (20-day) (M)	0.92*	0.98	0.23	n/a
FC Market capitalization	C\$50.2	A\$86.5	C\$14.2	C\$150.9



Location of the combined licenses  
(blue, dark brown, red)  
(Source: First Cobalt)

Town, Silver Centre and Lorrain Valley cobalt projects and Cobalt One owns the only refinery in the whole cobalt camp. This is one of only four refineries of this type in all Canada. By the end of 2017 a drill program with 4,000m is planned for Silverfields.

## CobaltTech Mining

CobaltTech Mining has a 100% interest in the Kerr Lake and Lawson projects and therefore owns more than 10 former (cobalt) mines that produced over 32 million ounces of silver with cobalt as a significant by-product from 1905 to 1996. 6,588 tons of crushed high-grade material is stockpiled on site. The analysis of more than 2,000 collected samples showed that this material averages 761 gpt silver and 0.95% cobalt. In addition, CobaltTech

owns a fully permitted mill with a processing capacity of 100 tons per day, vibrating tables, a concentrator, excavator, bulldozer and loader. A drill program comprising 4.000m is planned for Kerr-Lawson at the beginning of 2018.

## Ontario's cobalt camp

Ontario's Cobalt Camp is located 500 road kilometer northwest of Toronto and can be reached within 5 hours by car over the Trans-Canada Highway and by train via Ontario Northland Railway Line. The district was the most prolific region for cobalt in the past although the focus was rather on the equally abundant silver deposits. Over a period of 60 years, especially from 1919 to 1932, 50 million pounds of cobalt and 600 million ounces of silver were produced there. Among other things the present gold major Agnico-Eagle has its origins in this district. In the past exploration for cobalt was carried out sporadically. One reason was the declining production after World War II and the other reason was the predominant exploration for silver. The prospecting for large amounts of cobalt-bearing material never took place. Therefore, the district has a high exploration potential for cobalt especially. Combined the three companies have around 10,500 hectares as well as a significant infrastructure including a 100 tpd Mill and refinery as well as a high-grade stockpile.

## Very successful management team

A very big advantage is First Cobalt's extremely successful management team. President & CEO Trent Mell was involved in over 200 transactions including

Barrick Gold, Sherritt International, AuRico Gold, Falco Resources and PearTree Securities. He has a great wealth of experience in the mining and finance sectors.

Dr. Frank Santaguida, VP Exploration, was among other things the chief geologist at First Quantum.

Director Paul Matysek was involved in several top-class takeover and merger deals such as Goldrock Mines/Fortuna Silver, Lithium One/Galaxy Resources and Potash One/K+S. He is currently Executive Director at Lithium X and a Board member of several lithium and uranium companies.

Director Bob Cross is Chairman of gold major B2Gold and has extensive experience in the resource sector among other things by his activities at Bankers Petroleum, Petrodorado Energy, Northern Orion Resources, Yorkton Securities & Gordon Capital.

## Summary

The strategy is clear for the future company First Cobalt that is comprised of three smaller companies with a large land package in Canada's leading cobalt district as well as several facilities and stockpiles: to generate a significant cash flow as fast as possible with the existing fully permitted facilities and to finance the exploration costs on the extensive land holdings where among other things, Agnico-Eagle is a neighbor. The company wants to establish a significant resource and expand the existing processing facilities as fast as possible. That this is possible, the very experienced and successful management team has demonstrated several times in the past. The company is sufficiently financed to carry out the planned drill campaigns.

**ISIN:** CA3197021064  
**WKN:** A2ASGU  
**FRA:** 18P  
**TSXV:** FCC

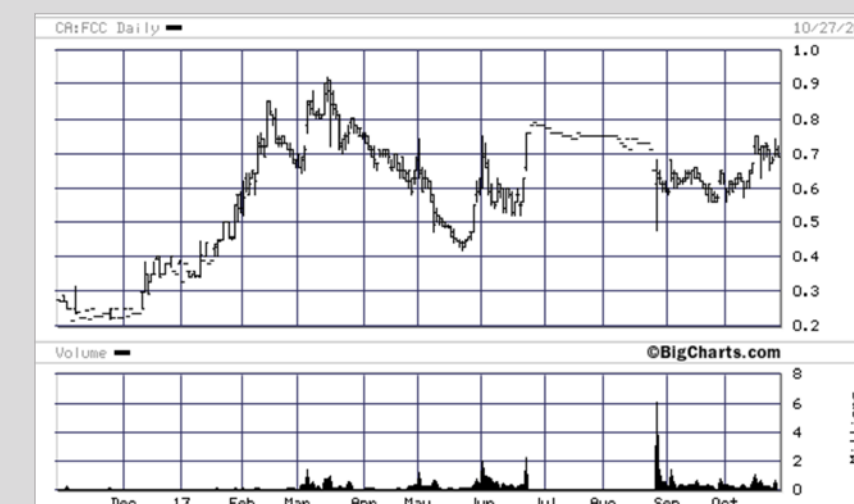
Shares issued: 57.2 million  
Options: 3.6 million  
Warrants: 5.2 million  
Fully diluted: 66.1 million

**Contact:**  
First Cobalt Corp.  
Suite 201, 140 Yonge Street  
Toronto, ON M5C 1X6

phone: +1-416-900-3891

info@firstcobalt.com  
www.firstcobalt.com

## First Cobalt Corp.



(Source: BigCharts)



# Overview of SRC's communication programs



