



6 November 2018

**Market data**

EPIC/TKR	ILC
Price (C\$)	0.07
12m High (C\$)	0.23
12m Low (C\$)	0.065
Shares (m)	148.9
Mkt Cap (C\$m)	10.4
EV (C\$m)	15.0
Market	TSX

Description

International Lithium Corp. (ILC) is advancing four lithium exploration assets. Key issues for investors are the new management, the partnership with Ganfeng Lithium (Ganfeng), funding and the low valuation.

Company information

Chairman/CEO	John Wisbey
CFO	Maurice Brooks
COO	Anthony Kovacs
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Key shareholders

John Wisbey	21.16%*
Ganfeng Lithium	11.46%*
TNR Gold Corp.	6.63%*
Other directors/Mgt.	4.67%*

* incl. convertibles

Diary

Nov'18	3Q results
Apr'19	Finals

Analyst

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INTERNATIONAL LITHIUM CORP.**Canada restructured, key announcements pending**

ILC's turnaround is continuing under stewardship of the new Chairman/CEO. Restructuring the Canadian assets shifts the focus towards the Raleigh Lake deposit, which has geological similarities with a large, existing mine. For now, the key driver of ILC's share price will be Mariana, its core lithium project in Argentina. Financial markets remain ambivalent towards explosive lithium demand growth and the related equities, believing that demand might be outpaced by supply. In stark contrast, corporates like auto suppliers, battery makers and ILC's partner, the Chinese lithium major, Ganfeng, are accelerating their efforts to secure supply.

- ▶ **Canadian upside:** ILC has regained 100% ownership of Raleigh Lake, adding additional acreage next to the deposit. New exploration work is imminent, with the company more upbeat after identifying similarities between early geological assessment of Raleigh Lake and Cabot Corp's Tanco mine.
- ▶ **Strategic partner is key to investment case:** Ganfeng owns 11.46% of ILC and majority stakes in two of its lithium projects, Mariana and Avalonia (Ireland). Ganfeng has an ambitious target for shipping Mariana product in 2021, and has recently appointed a new Chinese project manager to accelerate development.
- ▶ **Lithium disconnect:** While markets largely ignore lithium, lithium producers are acquiring upstream resources, and downstream users are securing lithium supply chains. Recently, Ganfeng acquired a 50% stake in the Cauchari-Olaroz project in Argentina, and Tesla, BMW and LG (batteries) have signed long-term deals.
- ▶ **Risks:** The new Chairman/CEO has resolved operational issues and, aside from the normal risks for a junior miner, his focus now is staying ahead of the funding curve – a further C\$3.5m needs to be raised in 2018. A “funding feedback loop” is in play, where continued success should attract a fair valuation for ILC shares.
- ▶ **Investment summary:** Our DCF valuation for ILC is C\$0.30-C\$0.37/share, based on the Mariana project only. Using EV/resources multiples, ILC is valued at less than US\$40/t LCE (lithium carbonate equivalent), in line with the average for its small-cap peers. The May 2018 sale of Galaxy Resources' non-core asset, Salar del Hombre Muerto (a lithium brine project with a resource estimate like that of Mariana), achieved an EV/resource price of US\$110/t LCE.

Financial summary and valuation

Year-end Dec (£000)	2015	2016	2017	2018E	2019E	2020E
Sales	0.000	0.000	0.000	0.000	0.000	0.000
Royalties	0.000	0.000	0.000	0.000	0.000	0.000
Underlying EBIT	-0.631	-0.796	-2.354	-0.720	-0.720	-0.720
Reported EBIT	-0.631	-0.796	-2.354	-0.720	-0.720	-0.720
Underlying PTP	-0.769	-1.033	-2.729	-1.463	-1.240	-1.554
Statutory PTP	-0.769	-1.033	-2.729	-1.463	-1.240	-1.554
Underlying EPS (C\$)	-0.01	-0.01	-0.03	-0.01	-0.01	-0.01
Statutory EPS (C\$)	-0.01	-0.01	-0.03	-0.01	-0.01	-0.01
Net (debt)/cash	-1.146	-2.932	-4.627	-6.275	-1.451	-13.171
Avg. shares (m)	77.13	83.70	89.33	102.75	193.78	305.4
P/E (x)	n/a	n/a	n/a	n/a	n/a	n/a
EV/sales (x)	n/a	n/a	n/a	n/a	n/a	n/a

Source: Hardman & Co Research

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Moving forward in Canada

Restructuring of Canadian assets

Three elements to the restructuring

On 10 September 2018, ILC announced a major restructuring of its Canadian exploration assets, Mavis Lake, Forgan Lake and Raleigh Lake, which saw:

- ▶ a shift of focus away from Mavis Lake;
- ▶ the disposal of the 100%-owned Forgan Lake property at Thunder Bay; and
- ▶ the acquisition of additional acreage adjacent to Raleigh.

We analyse these strategic moves below, but, first, a recap on ILC in Canada.

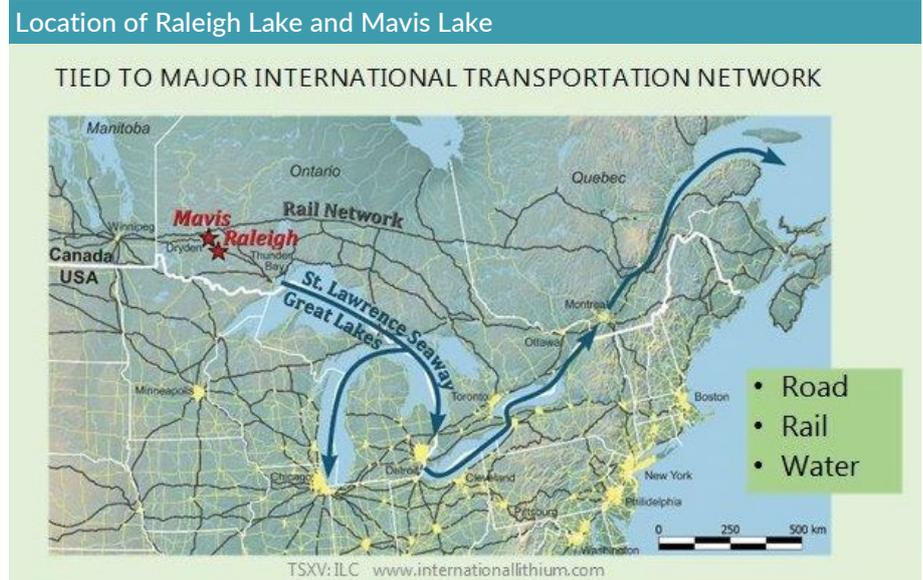
TNR Gold acquired Mavis Lake for the pegmatite ore body

Its first Canadian asset at Mavis Lake was acquired via staking by ILC's former parent, TNR Gold, in 2009. Located in the "Upper Canada Lithium Pool", the claims covered a pegmatite ore body with high grades of lithium and tantalum zonation, as well as significant levels of caesium and rubidium. Pegmatites are coarsely crystalline granites or other igneous rocks formed when magmatic rock slowly crystallises.

Mariana is a lithium brine project, in contrast to Mavis/Raleigh/Forgan Lake, which are hard-rock projects

Following the acquisition of Mavis Lake, TNR Gold added the Forgan Lake project. However, ILC did not explore the property, as Ganfeng Lithium was more interested in ILC's other assets. In March 2016, ILC added to its Canadian portfolio with the acquisition of a 464-hectare property at Raleigh Lake, 60km east of Mavis Lake.

This was followed by the purchase of Forgan Lake



ILC's more advanced project, Mariana, located in the Argentine section of Latin America's "Lithium Belt", is lithium brine. In contrast, Mavis/Raleigh/Forgan are "hard-rock" deposits, in which lithium is contained in spodumene ore. Spodumene occurs in a lithium aluminium inosilicate, which occurs in lithium-rich granite pegmatites.

Drilling at Mavis Lake during 2011-13 suggested the possibility of a large pegmatite system at depth. In 2016, ASX-listed explorer, Pioneer Resources, acquired an

option to earn a 51% stake in the Mavis Lake project by spending C\$1.5m on exploration.

With Pioneer on board, the hiatus in drilling at Mavis Lake ended. A month after the deal, ILC announced a US\$1.0m programme, as Pioneer personnel began field programmes. The 2017 drilling programme was encouraging, intersecting high grades of Li₂O up to 2.97% and at depths greater than previously encountered.

Canadian assets re-evaluated after John Wisbey appointed as Chairman

Following ILC's management restructuring and the appointment of John Wisbey as Chairman in March 2018, ILC reassessed its Canadian portfolio. The company's focus will shift from Mavis Lake to the development of the enlarged Raleigh Lake property.

No additional funding needed by ILC on Mavis Lake

With Mavis Lake, in August 2018, Pioneer was deemed to have completed its first earn-in, giving it 51% ownership and ILC 49% in the project. ILC received a credit of C\$75,000 against its share of future exploration expenditure. Pioneer retained the right to increase its ownership to 80% by sole-funding C\$8.5m of additional exploration expenditure during the next seven years.

Forgan Lake sold

ILC sold the mineral rights to Forgan Lake to Ultra Lithium for cash and shares amounting to C\$0.2m, payable over two years. To prevent ownership reverting to ILC, Ultra Lithium committed to C\$0.5m of exploration spend before September 2022.

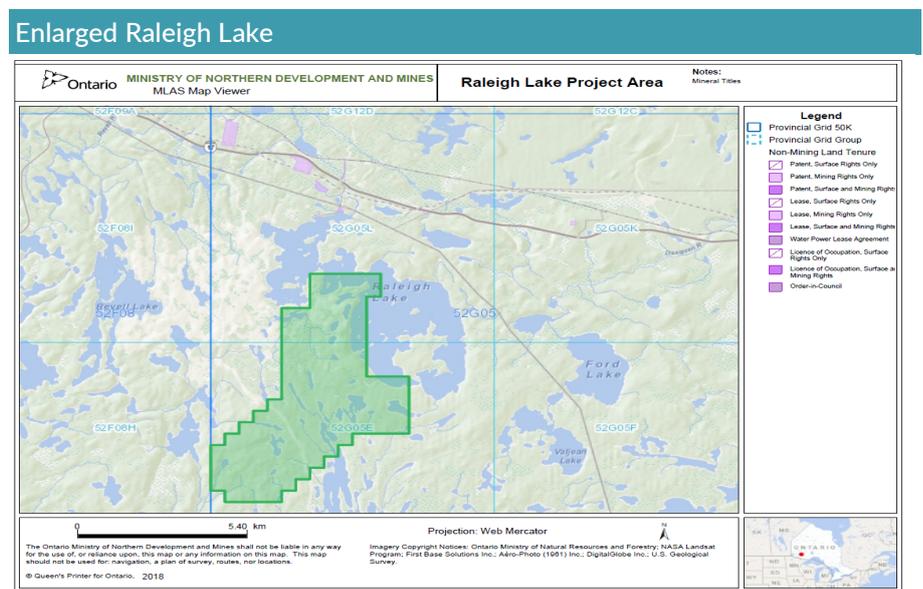
Focusing on Raleigh Lake

ILC takes 100% ownership in Raleigh Lake

ILC regained its 100% ownership of Raleigh Lake after Pioneer relinquished its holding in the property with no liabilities in terms of earn-in or royalty obligations. As we will discuss below, the decision to push ahead with the development of Raleigh Lake is based on a geological analysis by ILC's Chief Operating Officer, Anthony Kovacs.

Adding further acreage

As part of this strategy, the company announced the acquisition of an additional 55 claims adjacent to Raleigh Lake for a cash sum and 400,000 ILC shares. The addition of the new claims roughly doubled the size of the property to 1,976 hectares. The new claims are shaded in green in the graphic below.



Source: ILC

Commenting on the news, ILC's Chairman and CEO, John Wisbey, noted:

"Raleigh Lake is the property in Ontario that we were most excited about. We have not only got back all our rights to this asset, but we have now been able to acquire further rights that almost double the area of our claims in the Raleigh Lake area that we believe maximizes the potential of the mineralization that exists on the claims. I am very pleased that we have been able to move at speed like this to achieve a strategic goal in Canada.

We will be conducting some drilling in the next few months with the goal of validating our hopes for the potential of Raleigh Lake. We believe there is considerable potential, although until we have more drilling results to complement those drilling results from earlier years and the magnetic drone survey carried out in 2016, there is always the risk that we may be disappointed."

Previous drilling on additional acreage intersected pegmatites

The newly-acquired claims adjacent to Raleigh Lake have had little exploration work up to now, although there has been some drilling, which intersected pegmatites. ILC is optimistic that the lithium-bearing pegmatite mineralisation found at the legacy Raleigh Lake claims continues like a "seam" across the newly-acquired claims. We believe it might do.

In the meantime, let's review the historical exploration at Raleigh Lake, and then consider the geology, which ILC believes supports its view that the enlarged claim potentially has substantial commercial value.

Geological case for Raleigh Lake

Two phases of exploration prior to ILC acquisition

In terms of ILC's legacy claim at Raleigh Lake, rare metal mineralisation at Raleigh was identified in 1966, and further categorised between 1993 and 1999 by the Ontario Geological Survey. This led to two periods of exploration. The first, from 1999 to 2001, focused on tantalum, while the second, in 2010, was expanded to encompass lithium. These exploration campaigns included mapping, litho-geochemistry, trenching (1,500 metres) and diamond core drilling (2,818 metres in 17 holes). They resulted in the identification of several large lithium and tantalum-bearing pegmatites, and numerous smaller ones.

Revisiting the exploration results

When ILC revisited the exploration results at Raleigh Lake, Anthony Kovacs noted how the intersections of pegmatites over hundreds of metres were almost continuous. The intersections were every 5-10 metres, with lithium-oxide grades of more than 2% in most cases. Furthermore, the drilling over a 300m x 600m area confirmed that the resource was open in all directions.

Drawing parallels with the Tanco mine

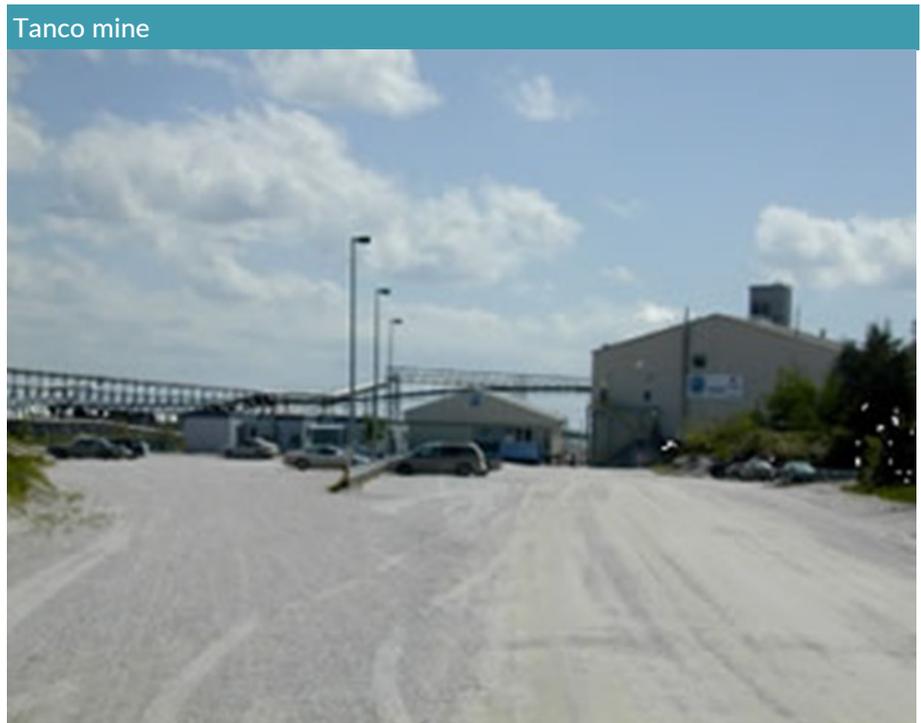
While these observations might have been sufficient to justify ILC's focus on Raleigh Lake and the acquisition of additional claims, Kovacs sees more potential from the geological similarities with the large Tanco mine to the west of Raleigh.

Tanco is an underground mine on the north-western shore of Bernic Lake, which is owned by Cabot Corporation. The Tanco pegmatite, under Bernic Lake, was found accidentally during a diamond drilling programme carried out by Consolidated Tin Mining Co., Ltd. in the 1920s. The pegmatite ore body at Tanco is unique, having a very thick zone of mineralisation (essentially a single unit), which is shallow and flat-lying. The "LCT" mineralisation includes:

- ▶ lithium-containing spodumene;
- ▶ caesium-containing pollucite; and
- ▶ tantalum-containing simpsonite and tantalite.

Tanco ore body contains lithium, caesium, tantalum and other rare elements

While mining at Tanco began in 1929 and initially focused on tantalum, the full potential of the ore body was not understood for another three decades. During 1959-61, Chemalloy Minerals Ltd. drove a shaft to a depth of 103m and completed 8,800m of diamond drilling. It was during this period that the pollucite bodies were discovered and the enormous abundance of tantalum minerals, and later caesium, was recognised. The deposit also contains sizeable quantities of rubidium, gallium, beryllium and industrial minerals, such as amblygonite-montebasite, rubidian K-feldspar and quartz.



Source: Hardman & Co Research

The world's largest source of caesium

After acquiring the Tanco mine in 1993, Cabot ramped up production of caesium brines, making the Tanco mine the world's largest source of caesium. The following comment is sourced from a paper given at the Geological Association of Canada's annual meeting in 1996, "Petrology and Mineralization of the Tanco Rare-Element Pegmatite, Southeastern Manitoba", by Petr Cerny, T.S. Ercit and P.T. Vanstone:

"The Tanco pegmatite has played a globally significant role in the production of tantalum ore concentrates, pyroceramic spodumene, pollucite and other materials since the late nineteen sixties."

The following comment is from "The Tanco Mine: Geological Setting, Internal Zonation and Mineralogy of a World-Class Rare Element Pegmatite Deposit" by T. Martins, P. Kremer and P. Vanstone:

Caesium has multiple applications

"Tanco produces caesium products from pollucite. It is estimated that the pegmatite held about 75% of the world's known reserves of this mineral. Caesium can be used in magneto-hydrodynamic power generation, in aerospace applications, optoelectronics, in DNA separation and as a catalyst in chemical applications. It is also used as a calibrated drilling lubricant for high temperature, high pressure oil wells (caesium formate). The main use for the pollucite mined at Tanco is in the manufacture of caesium formate brine."

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Tanco is one of three huge pegmatite ore bodies

The paper from the Geological Association of Canada, cited above, put Tanco's economic value into perspective with other huge pegmatite ore bodies:

"Among pegmatites of its petrological and geochemical type, the size of this pegmatite is surpassed, to the best of our knowledge, only by the Bikita deposit in Southern Rhodesia and the metamorphosed Greenbushes pegmatite system in western Australia...The Tanco pegmatite contains the largest and highest-grade pollucite concentration known to date."

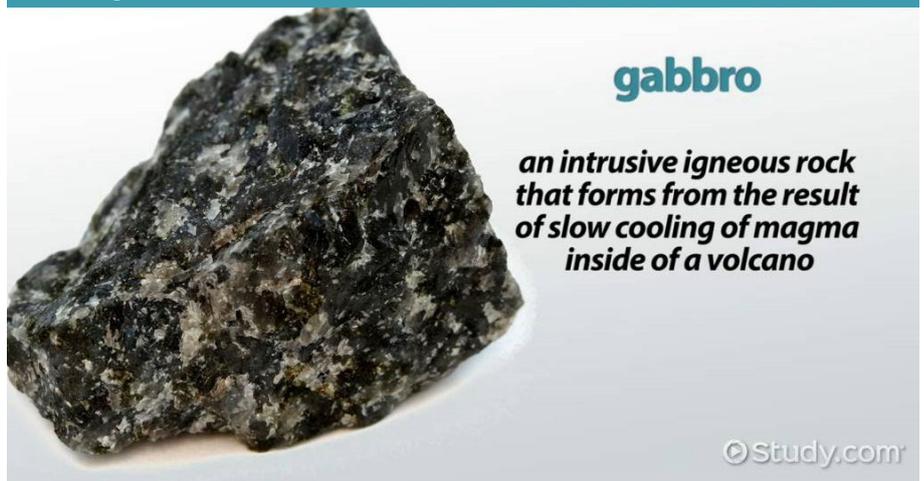
Greenbushes is the world's largest hard-rock source of lithium

While the Tanco Mine is the world's largest producer of caesium, Greenbushes is the world's largest hard-rock lithium mine, and Bikita is a large lithium mine in what is now Zimbabwe. Consequently, it would be potentially advantageous if there were geological similarities between Raleigh Lake and these other huge pegmatite ore bodies, notably the Tanco mine.

Pegmatite is hosted in gabbro intrusions

Descriptions of the mineralisation at the Tanco mine emphasise that the pegmatite is hosted in late-stage gabbro intrusions. Gabbro is a coarse-grained intrusive rock, formed below the earth's surface when magma is forced into older rocks and then slowly solidifies.

What is gabbro?



Source: Study.com

Geological papers explain the much written-about Tanco mineralisation

In "Exploration Techniques for Rare-Element Pegmatite in the Bird River Greenstone Belt, Southeastern Manitoba", C. Galeschuk and P. Vanstone comment:

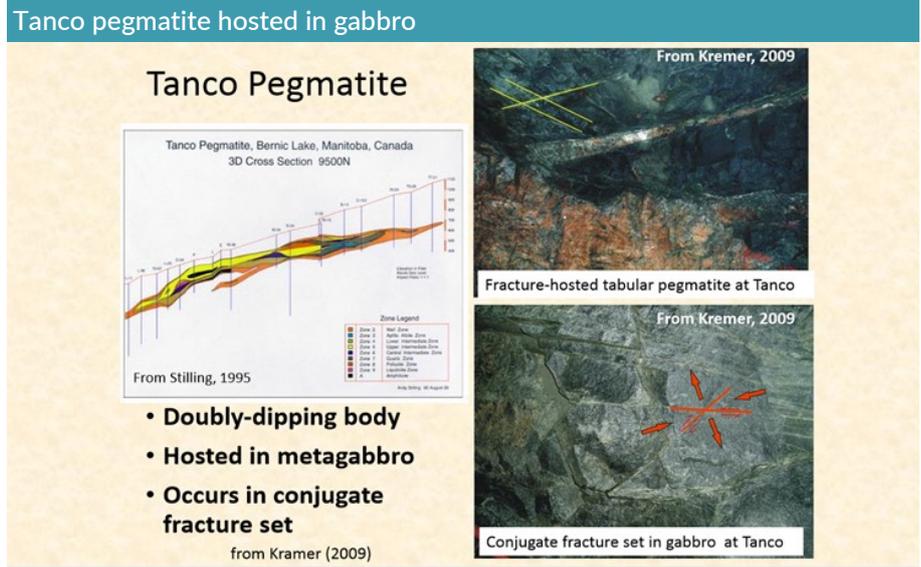
"these pegmatites are hosted by late-stage, subvolcanic, metagabbro intrusions."

In "The Tanco Mine: Geological Setting, Internal Zonation and Mineralogy of a World-Class Rare Element Pegmatite Deposit", Martins, Kremer and Vanstone make the same point about the gabbro hosting:

"The Tanco gabbro is a gabbroic to dioritic body, on the northwest shore of Bernic Lake that is the host rock for the Tanco pegmatite. The gabbro is approximately 1.5 km wide, and extends laterally for about 3 km."

The gabbro intrusions hosting the pegmatite ore body "swarm" out in finger-like patterns of parallel dykes, as the Geological Association of Canada paper notes:

"The pegmatite is fingering out in swarms of parallel dykes along most of its margins."



Source: Hardman & Co Research

The Tanco pegmatite is highly fractionated

Pegmatite systems occur in two styles, being either shear-hosted in highly deformed metavolcanics rocks, or fracture-based in gabbro. Indeed, the same paper notes the fractionated characteristics of the Tanco ore body:

“This highly fractionated pegmatite of the lithium-caesium-tantalum (LCT) family has an extensive mineralogy (more than 100 listed minerals) and it is zoned (consists of nine internal zones).”

Furthermore, it comments:

“The great abundance of rare elements and the high degree of fractionation attained by the bulk of the pegmatite are combined with steep gradients in abundances of these elements across the pegmatite.”

Martins, Kremer and Vanstone comment in “The Tanco Mine: Geological Setting, Internal Zonation and Mineralogy of a World-Class Rare Element Pegmatite Deposit”:

“The Tanco pegmatite has fascinated renowned geoscientists, the entire pegmatite community and mineral collectors around the world. It is a big, highly complex and fractionated body that has been the target of scientific research since the 1970s.”

Looking for similarities between Tanco and Raleigh Lake

With this discussion of pegmatite geology at Tanco mine in mind, let’s consider some of the geological findings so far at Raleigh Lake.

Pegmatites at Raleigh Lake are also hosted in gabbro, and occur in narrow dykes

Firstly, pegmatites found at Raleigh Lake are hosted in gabbro and, secondly, they occur in a series of narrow dykes, like the Tanco Mine. In a 2010 paper by Peter J. Vanstone of Vanstone Geological Services’ “Report on Raleigh Lake Rare Element Pegmatite Property”, the geologist explained the findings of earlier drilling programmes:

“The pegmatite intersected in hole RL10-03 was a zoned spodumene-bearing dike hosted in a fine-grained massive gabbro.”

He went on to say:

“The gabbro host is viewed as a positive indicator for pegmatite potential in the area. A number of the large commercial pegmatites throughout the world are hosted within metagabbro or amphibolites ± quartz schists.”

Some evidence of fracturing at Raleigh Lake

A third similarity with Tanco is evidence of fracturing. As Vanstone’s paper comments on drill hole RL10-05:

“Coarse grained laths of light green, prismatic spodumene crystals up to ~7 cm in length displaying some brittle fracturing were noted in the more central portions of the pegmatite.”

Finally, in an aerial survey and lithogeochemical sampling report prepared for ILC in 2016 by Coast Mountain Geological Ltd., the report, referencing an earlier study, noted:

“Campbell (2001) considered the flattening as evidence for structural modification of pegmatite emplacement conditions, which would provide areas for ponding and continued remobilization of volatiles in the pegmatites, such as at the Tanco deposit.”

This referred to “Pegmatite 1”, a pegmatite area in the southern central part of the property.

New drilling targets will be identified

In conclusion, there are some early grounds for optimism for ILC’s enlarged Raleigh Lake deposit. The next steps in terms of exploration will begin with an aerial survey to map out new drilling targets.

While ILC believes it would be possible to publish a limited resource estimate with relatively little additional work – perhaps only two to three additional drill holes – this is unlikely to happen. In the company’s opinion, a better strategy would be to drill a larger number of holes, in the belief that a more substantial resource could be estimated.

Update on Mariana

While Canada now has upside potential, the Mariana lithium brine project remains the main share price driver for ILC

ILC’s core exploration asset, and the key driver of its share price, will continue to be Mariana, the lithium brine project in Argentina.

Since our initiation report (*Partnered with China’s biggest lithium player*) on ILC in July 2018, exploration spend at Mariana has been tracking slightly lower than expected, due to poor weather during the Argentine winter. This impeded the testing of evaporation wells. However, we are not changing our cashflow or P&L forecasts at this stage, since the underspend on Mariana might be broadly offset by expenditure at Raleigh Lake.

ILC’s partnership with Ganfeng is a key part of the investment case

Chinese lithium major, Ganfeng, owns 11.46% of ILC and majority stakes in two of ILC’s four exploration projects, Mariana in Argentina (82.7%) and Avalonia in Ireland (55.0%). ILC has a back-in option to acquire an additional 10% of the Mariana project by paying back 10% of project costs to date, following completion of a Feasibility Study (FS).

Ganfeng is China’s largest producer of lithium compounds and the third-largest worldwide after SQM and Albemarle. The support from Ganfeng, in terms of capital and technology, is a key part of ILC’s investment case. The Chinese company began as a midstream lithium producer, but found it was exposed to changes in the supply of lithium raw materials in terms of their availability, swings in prices and the oligopolistic upstream structure of the lithium industry.

International Lithium corp.

Developing projects with lithium explorers and developers is a central part of Ganfeng's strategy

Taking stakes in lithium producers and developers, such as ILC, is central to Ganfeng's strategy to ensure it has access to sufficient lithium supply in the years ahead. In August 2018, the company announced the acquisition of SQM's 50% stake in the Cauchari-Olaroz lithium brine project in Argentina for an initial cost of US\$87.5m. Ganfeng is also providing a loan facility of US\$100m for development of the project in partnership with Lithium Americas.

Ganfeng expects Mariana to be commissioned in 2021; this is encouraging but seems ambitious

Ganfeng is listed on the Shenzhen Stock Exchange, and is completing a US\$422m IPO in Hong Kong. In the initial IPO prospectus, Ganfeng reiterated its commitment to Mariana, with an ambitious target for shipping the first product (concentrated brine) in 2021. Our forecast has been more conservative, assuming that the first product will be shipped in early 2022. However, we believe that 2021 remains Ganfeng's target, and we note that the company has appointed a new project manager for Argentina to facilitate the development of Mariana, along with Cauchari-Olaroz.

Downstream users are signing up for Ganfeng's lithium supply

We suspect that Ganfeng's commitment to Mariana and its other upstream lithium investments has been strengthened after it signed two major supply contracts with auto makers in recent weeks:

- ▶ a five-year contract to supply as much lithium hydroxide as BMW needs, with an option to extend the deal for a further three years; and
- ▶ a three-year contract from 2020 to supply Tesla Inc. with 20% of the auto company's lithium needs, with an option to extend the deal for a further three years.

These two deals in September followed an August announcement that Ganfeng would supply lithium hydroxide and lithium carbonate to South Korean battery maker, LG Chem, beginning in 2019.

Financial markets are ignoring lithium, as corporates jockey to secure supply

The lithium disconnect

Despite financial markets remaining ambivalent towards the "lithium story", the corporate world is energised by the need to secure supply, as upstream producers, like Ganfeng, acquire additional resources, and downstream users, like auto makers, protect their supply chains.

With regard to ILC, there are two critical announcements on the horizon for Mariana.

We are waiting for the PEA (Preliminary Economic Assessment) in the next few weeks. This should be followed by a Pre-FS in the early months of 2019.

As ILC unlocks the value of its exploration assets, it is still critical for the company to remain ahead of its funding requirements.

Cashflow, earnings and valuation

Staying ahead of the funding curve

Mariana will account for about C\$3.75m of the C\$6.5m ILC needs to raise during 2018

To unlock the value of its lithium exploration assets, the imperative for ILC's management is to remain ahead of the company's funding requirements. In aggregate, ILC requires in the region of C\$6.5m of external funding in 2018 to meet its funding commitments for the Mariana project, redeem convertible debentures, and pay staff and suppliers. Of the C\$6.5m figure, Mariana will account for approximately C\$3.75m (i.e. 17.246% x US\$17.0m budget).

The funding requirement is likely to rise slightly, to about C\$7.0m, in 2019

Having concluded a C\$1.18m convertible debenture issue and a subsequent C\$1.8m convertible debenture earlier in 2018, ILC has raised C\$2.98m, or nearly 45%, of the C\$6.5m it needs this year. Our model currently assumes a C\$3.52m equity raising during 2H'18, at a price of C\$0.10 per share.

Assuming that ILC meets its 2018 milestones in terms of funding and a Mariana PEA, we expect the funding requirement to rise modestly, to about C\$7.0m, in 2019, and to be financed by a straight equity issue.

ILC has a back-in option to acquire an additional 10% of the Mariana project on the completion of an FS

If exploration work at Mariana continues as expected, ILC's management anticipates a PFS by late 2018 or early 2019. We have no reason to doubt this time frame, and we are assuming an FS by the end of 2019 or the beginning of 2020, which could trigger the Mariana back-in option. This is potentially very significant for ILC's financial performance going forward.

If ILC exercises its back-in option to acquire an additional 10% stake in Mariana, the 2020 funding requirement would be an additional ca.C\$7.0m – equivalent to 10% of development costs at the date at which it is exercised. This is management's current intention, and would increase ILC's ownership from 17.246% to 27.246%. Our P&L and cashflow projections, shown below, assume a base case that the back-in option is not exercised (at this stage), but we comment on its potential impact and show the DCF valuations under both scenarios.

We are estimating that Mariana will have production of 10,000 tonnes LCE p.a., with commissioning at the beginning of 2022

We are currently estimating that a potential lithium project at Mariana will have a production of 10,000 tonnes LCE p.a. However, ILC's management believes that successful testing of the membrane separation technology by Ganfeng (see below) could lead to a significantly higher production capacity.

In the meantime, our assumptions for the advancement of Mariana include that:

- ▶ construction of the project is green-lighted at the beginning of 2020; and
- ▶ the project is completed at the end of 2021, with commissioning beginning on 1 January 2022.

We estimate that the capital cost of Mariana will be no more than C\$200m

ILC's funding needs will obviously step up significantly from early 2020 to the end of 2021. The capital cost of a 10,000 tonne p.a. LCE project at US\$13,000/t-US\$15,000/t is US\$130m-US\$150m, or C\$166m-C\$192m, and we have conservatively assumed C\$200m (100% basis), spent C\$100m and C\$100m, respectively, during 2020 and 2021.

Excluding the back-in, ILC's funding should peak at C\$20.0m in 2021

ILC's 17.246% share would amount to a capital spend of C\$34.5m during those two years, or C\$54.5m after the back-in. From a financing perspective, we have assumed that ILC funds this capital expenditure on a 60:40 basis in terms of debt to equity under both scenarios. Excluding the back-in, we estimate that ILC's funding requirement would peak at approximately C\$20.0m in 2021.

ILC funding excluding 10% back-in option on Mariana

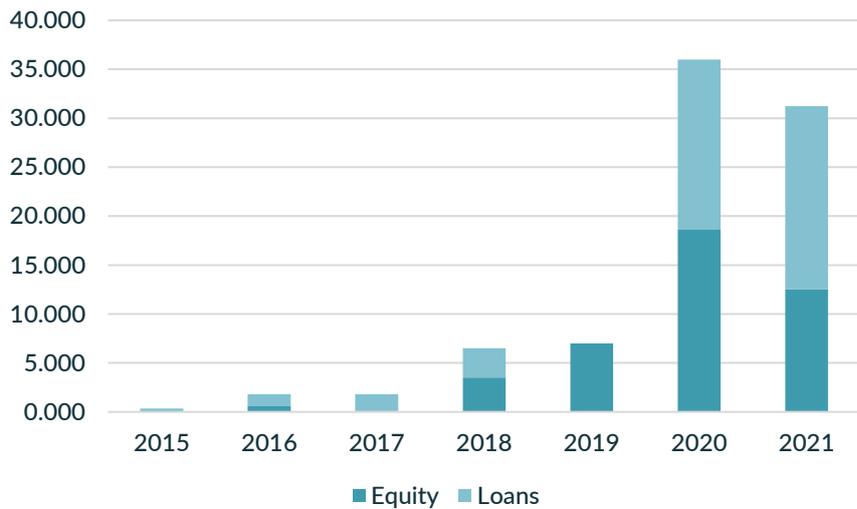


Source: ILC, Hardman & Co Research

With the back-in, funding should peak at nearly C\$36.0m in 2020

Including the ca.C\$7.0m cost of exercising the back-in option and the additional share of capex, ILC's funding requirement would likely peak at almost C\$36.0m in 2020.

ILC funding including 10% back-in option on Mariana



Source: ILC, Hardman & Co Research

Cashflow projection to complete
Mariana project

Cashflow and P&L estimates

Below are our cashflow projections through to end-2021, i.e. immediately prior to our expectation for the commissioning of Mariana.

ILC – cashflow statement					
Year-end Dec (C\$m)	2017	2018E	2019E	2020E	2021E
Operating profit	-2.354	-0.720	-0.720	-0.720	-0.725
Non-cash items:					
Accrued interest	0.371	0.000	0.000	0.000	0.000
Forex	-0.204	0.200	0.000	0.000	0.000
Share-based payment	1.051	0.000	0.000	0.000	0.000
Dilution of Mariana	0.666	0.000	0.000	0.000	0.000
Other	0.010	0.000	0.000	0.000	0.000
Operating cashflow	-0.460	-0.520	-0.720	-0.720	-0.725
Change in receivables	0.074	0.000	0.000	0.000	0.000
Change in prepaids	-0.003	0.000	0.000	0.000	0.000
Change in payables	0.091	0.000	0.000	0.000	0.000
Cash from operations	-0.297	-0.520	-0.720	-0.720	-0.725
Tax paid	0.000	0.000	0.000	0.000	0.000
Net cash from ops.	-0.297	-0.520	-0.720	-0.720	-0.720
Exploration expenditure	-0.031	-3.800	-3.800	-17.246	-17.246
Equity inv. funding	-1.547	0.000	0.000	0.000	0.000
Recoveries on min. prop.	0.051	0.000	0.000	0.000	0.000
Other	0.157	0.000	0.000	0.000	0.000
Net cash for investing	-1.369	-3.800	-3.800	-17.246	-17.246
Increase in loans	0.000	0.000	0.000	10.948	12.148
Shares issued	0.113	3.520	7.000	7.298	8.098
Conv. debentures issued	1.694	2.980	0.000	0.000	0.000
Conv. debentures red.	0.000	-1.000	-0.700	0.000	0.000
Share issue costs	0.000	-0.106	-0.210	-0.219	-0.243
Net interest	-0.430	-0.743	-0.520	-0.834	-1.993
Other	0.249	0.000	0.000	0.000	0.000
Net cash for financing	1.626	4.652	5.570	17.193	18.011
Net change in cash	-0.041	0.332	1.050	-0.773	0.040
Cash: end of year	0.004	0.335	1.386	0.613	0.653
Debt: end of year	-4.630	-6.610	-3.037	-13.984	-26.132
Net debt: end of year	-4.627	-6.275	-1.651	-13.371	-25.479

Source: Hardman & Co Research

Should ILC exercise the 10% back-in option, we estimate that end-2021 net debt would be C\$38.548m, compared with our base case of C\$25.479m.

We are conservatively assuming that Mariana will be commissioned in 2022

We should reiterate that ILC's management and Ganfeng's IPO prospectus consider our 2022 assumption for Mariana's commissioning date as too cautious – with both believing 2021 is more likely. However, we prefer to be conservative at this stage and, in future, to bring Mariana commissioning forward in our model if ILC is able to push ahead with the project more rapidly than we are currently assuming. Furthermore, a valuation case for ILC does not require support from an advancement of Mariana versus our current assumptions.

P&L projections through 2021

Switching to the P&L account, our projections through to the end of 2021 are shown in the table below.

ILC – profit & loss account					
Year-end Dec (C\$m)	2017	2018E	2019E	2020E	2021E
Sales	0.000	0.000	0.000	0.000	0.000
Cost of sales	0.000	0.000	0.000	0.000	0.000
Gross profit	0.000	0.000	0.000	0.000	0.000
Margin (%)	n/a	n/a	n/a	n/a	n/a
Operating income	0.168	0.000	0.000	0.000	0.000
Operating expenses:					
Consulting fees	-0.574	-0.200	-0.200	-0.200	-0.200
Forex	0.182	0.000	0.000	0.000	0.000
Loss on equity inv.	-0.082	0.000	0.000	0.000	0.000
Office and misc.	-0.043	-0.050	-0.050	-0.050	-0.052
Professional fees	-0.170	-0.150	-0.150	-0.150	-0.150
Rent	-0.019	-0.015	-0.015	-0.015	-0.016
Shareholders' comms.	-0.077	-0.120	-0.120	-0.120	-0.120
Share-based payments	-1.051	0.000	0.000	0.000	0.000
Directors' fees	-0.070	-0.100	-0.100	-0.100	-0.100
Loss on Mariana dil.	-0.666	0.000	0.000	0.000	0.000
Other	0.048	-0.085	-0.085	-0.085	-0.087
EBIT	-2.354	-0.720	-0.720	-0.720	-0.725
Interest charges	-0.375	-0.743	-0.520	-0.834	-1.993
Pre-tax profit	-2.729	-1.463	-1.240	-1.554	-2.718
Taxation	0.000	0.000	0.000	0.000	0.000
Tax rate (%)	n/a	n/a	n/a	n/a	n/a
Attributable profit	-2.729	-1.463	-1.240	-1.554	-2.718
Basic no. of shares (m)	89.325	102.754	193.784	305.393	345.885
Basic EPS (C\$)	-0.03	-0.01	-0.01	-0.01	-0.01

Source: Hardman & Co Research

Operating losses estimated in the range of C\$0.5m-C\$1.0m prior to Mariana commissioning

Prior to commissioning of Mariana, assuming it goes ahead, we expect ILC to make operating losses in the range of C\$0.5m-C\$1.0m, due mainly to corporate overheads and professional costs (and benefit from the elimination of share-based payments). Below the operating line, pre-tax losses are expected to rise – due mainly to interest costs – from slightly less than C\$1.5m in the current year to almost C\$3.0m in 2021.

By exercising the back-in option, there will be no change to our EBIT projections, but losses at the pre-tax level will rise to C\$2.7m, due to higher interest charges. Losses per share will be little different, despite the higher number of shares.

Losses should reverse into profits beginning in 2022

Under both scenarios, ILC's losses should reverse into profits in 2022, with the initial ramp-up in Mariana production. We expect Mariana to reach full production of 10,000 tonnes p.a. of LCE in its third full year of operation in 2024.

Valuation – DCF and comparison with lithium peers

DCF assumptions in detail

Our discounted cashflow valuation assumes a 40-year mine life for Mariana from 2023-62. The key assumptions, including sales volumes, selling prices and unit costs for our DCF valuation for ILC, are summarised in the table below.

ILC – DCF model – key assumptions		
	Denominator	
Annual production capacity	Tonnes	10,000
Time to achieve full production	Years	3
Life of mine	Years	40
Selling price LCE (long-term)	US\$/t	12,700
Production cost LCE	US\$/t	3,300
Royalty	% of revenue	3.5
Corporate tax rate	% of pre-tax profit	25.0
Maintenance capex	C\$m	2.0
NPV discount rate	%	8.0
Fully-diluted shares, end-2021	Million	345.9
US\$/C\$	Ratio	0.76

Source: Hardman & Co Research

Under the back-in option on Mariana, the only change in the assumptions above is that the fully-diluted number of shares at the end of 2021 will be 430.3m, instead of 345.9m.

Below is a summary table for our DCF estimate for ILC from 2018-21 and the steady state for the Mariana project after it reaches full production from 2024-61 (obviously, the discounted value of free cashflows beyond 2024 continues to fall with time).

Base-case DCF valuation is C\$0.30

The lower segment of the table shows that our base-case valuation for ILC is C\$0.30 per share. This compares with a current share price of C\$0.075).

ILC – DCF analysis, base case					
Year-end Dec (C\$m)	2018E	2019E	2020E	2021E	2024-61E*
Sales					28.819
Royalties					-1.009
Production costs					-7.488
Less: tax					-5.080
NOPAT	-1.463	-1.240	-1.554	-2.718	14.901
Depreciation	0.000	0.000	0.000	0.000	1.216
Change in working capital	0.000	0.000	0.000	0.000	0.000
Less: capex	-3.800	-3.800	-17.246	-17.246	-0.345
Other	0.094	-0.210	-0.210	-0.243	0.000
Free cashflow	-5.168	-5.250	-19.019	-20.206	16.112
Discount rate	8.0%	8.0%	8.0%	8.0%	8.0%
Discount factor	1.00	0.93	0.86	0.79	
NPV of free cashflow	-5.168	-4.861	-16.305	-16.041	
Valuation					
Cumulative free cashflow					616.3
NPV of free cashflow					107.0
Less: net debt (end-2017)					-4.6
Market cap.					102.4
No. shares (m)					345.9
Valuation per share (C\$)					0.30

Source: Hardman & Co Research
*Mariana full production steady state

Base-case sensitivity analysis

The next table shows the sensitivity analysis of the valuation of ILC's shares in the DCF model to different assumptions for the long-term price of lithium carbonate (rows) and the unit production cost (columns), excluding the Mariana back-in.

ILC - DCF sensitivity, base case			
(US\$/t)	3,000	3,300	3,600
11,000	0.24	0.23	0.21
12,000	0.28	0.27	0.25
12,700	0.31	0.30	0.28
13,000	0.32	0.31	0.29
14,000	0.36	0.35	0.33

Source: Hardman & Co Research

DCF valuation, including Mariana back-in, is C\$0.37

The following table shows that our DCF valuation for ILC is C\$0.37 per share assuming that the 10% back-in option on Mariana is exercised on 1 January 2020.

ILC - DCF analysis, including Mariana back-in					
Year-end Dec (C\$m)	2018E	2019E	2020E	2021E	2024-61E*
Sales					45.530
Royalties					-1.594
Production costs					-11.831
Less: tax					-8.026
NOPAT	-1.463	-1.240	-1.876	-3.693	24.079
Depreciation	0.000	0.000	0.000	0.000	1.921
Change in working capital	0.000	0.000	0.000	0.000	0.000
Less: capex	-3.800	-3.800	-34.246	-27.246	-0.545
Other	0.094	-0.110	-0.558	-0.375	0.000
Free cashflow	-5.168	-5.250	-36.680	-31.313	25.455
Discount rate	8.0%	8.0%	8.0%	8.0%	8.0%
Discount factor	1.00	0.93	0.86	0.79	
NPV of free cashflow	-5.168	-4.861	-31.447	-24.858	

Valuation

Cumulative free cashflow	965.5
NPV of free cashflow	164.2
Less: net debt (end-2017)	-4.6
Market cap.	159.6
No. shares (m)	430.3
Valuation per share (C\$)	0.37

Source: Hardman & Co Research

*Mariana full production steady state

Sensitivity analysis including Mariana back-in

The next table shows the sensitivity analysis of the valuation of ILC's shares in the DCF model to different assumptions for the long-term price of lithium carbonate (rows) and the unit production cost (columns), including the Mariana back-in.

ILC - DCF sensitivity, including Mariana back-in			
(US\$/t)	3,000	3,300	3,600
11,000	0.30	0.28	0.27
12,000	0.35	0.34	0.32
12,700	0.39	0.37	0.35
13,000	0.40	0.39	0.37
14,000	0.45	0.43	0.42

Source: Hardman & Co Research

International Lithium corp.

Valuation based on Galaxy Resources' transaction

An alternative benchmark for valuing ILC, albeit on a takeout basis, was provided by the sale of Galaxy Resources' non-core asset, Salar del Hombre Muerto, in Argentina, on 29 May 2018. Like Mariana, it is a lithium-containing brine lake with a resource estimate, and is located near other producing salars. The sale price of US\$280m compared with resources (measured, indicated and inferred) of 2.54m tonnes of LCE, equating to an EV/t LCE of US\$110, or C\$144.74. Applying a similar valuation to ILC's 1.866m tonnes of LCE resources (admittedly indicated and inferred) gives a valuation for ILC of almost exactly C\$0.30 per share.

Galaxy Resources' valuation versus lithium brine peers

At the current ILC share price of C\$0.075, ILC is trading on an EV/t in terms of LCE tonnes in the range of US\$33.4/t to US\$34.9, depending on whether the Mariana back-in option is activated. Having traded at a discount to its peer group, the recent revitalisation of ILC, following the management restructuring, has seen its valuation move to a level that is broadly in line with its peer group in terms of EV/resources.

ILC – EV/resource valuation comparison		
US\$/t	Project	
Pure Energy Minerals	Clayton Valley	57.0
Lithium Power	Maricunga	45.4
Millennial Lithium	Pastos Grandes	31.1
Bearing Lithium	Maricunga	30.9
Advantage Lithium	Cauchari	27.4
Lithium Americas	Cauchari-Olaroz	25.6
Neo Lithium	3Q	9.7
Average		32.4
ILC excl. Mariana back-in		33.4
ILC incl. Mariana back-in		34.9

Source: Hardman & Co Research

Lithium disconnects

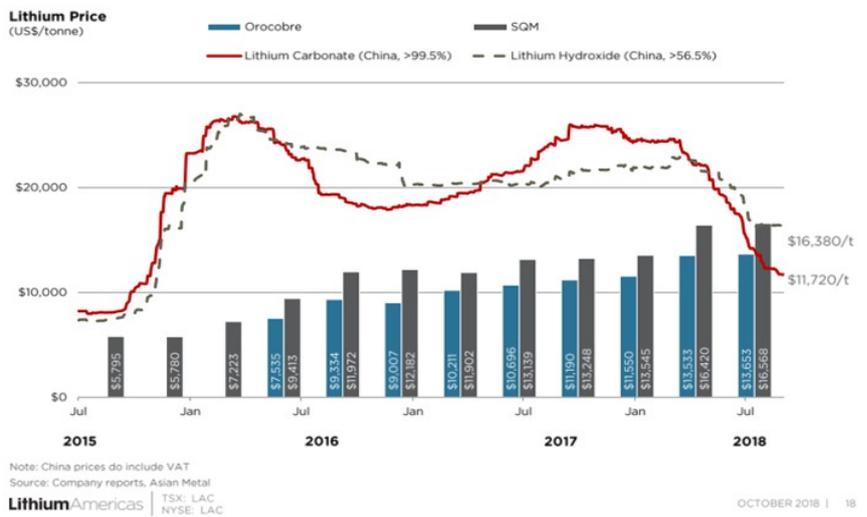
There is a second disconnect

The ramp-up in EV production led to a surge in lithium carbonate and lithium hydroxide prices during 2015 to 2017. We noted a “lithium disconnect” above in which markets remain ambivalent to lithium while corporates are energised to secure supply. There is a “disconnect” that relates to lithium prices. While Chinese spot prices (line charts) have fallen sharply, contract prices have trended upwards, and spot prices and contract prices are similar.

Lithium prices (1) – China domestic versus contract (US\$/t)

LITHIUM PRICE PERFORMANCE

China spot lithium carbonate and hydroxide prices have fallen 52% and 25%, respectively, since the start of 2018, while western contract prices have continued to rise



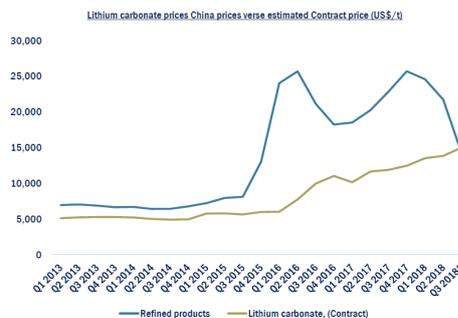
Source: Hardman & Co Research

Upbeat outlook from industry consultant, Roskill

Last month, the lithium industry consultant, Roskill, in a presentation “Lithium: Market Outlook”, at an LME Focus Session, also noted the recent convergence of domestic Chinese and global contract prices. For what it’s worth, Roskill expects contract prices to be stable/increase and domestic Chinese prices to re-establish a premium.

Lithium prices (2) – China domestic versus contract (US\$/t)

Lithium prices have been falling in China, though contract prices between major producers and consumers continue increase



Roskill

- China domestic price has been falling
- Contract prices at major producers expected to stay stable or increase
- Spodumene prices have also stayed strong
- DSO shipments to fall back as spodumene conc. availability increases
- Mineral contracts on more flexible (China Li₂CO₃ prices) indexes starting to dip.
- Coming together of 'China Internal' and long term contract prices.
- China internal has fallen below estimated contract price, but expected to revert to premium per historical trend

Asian Metal; Roskill; * - July-August data

Source: LME, Roskill

Our long-term average selling price assumption for lithium carbonate is US\$12,700/t

Our long-term average selling price assumption for lithium carbonate is US\$12,700/t, which is in line with the average of estimates used by other small-cap lithium developers. We have assumed that the price rises from US\$11,000/t in 2022 to US\$12,000/t in 2023, followed by US\$12,700/t thereafter. Please note that our peer group for the lithium carbonate price consists of other developers of lithium brine projects, in addition to Bacanora Minerals, which is a clay lithium project.

Lithium carbonate price assumptions – other brine projects

US\$/t	Project	Est. price
Advantage Lithium	Cauchari	>10,000
Neo Lithium	3Q	11,760
Lithium Americas	Cauchari-Olaroz	12,000
Pure Energy Minerals	Clayton Valley	12,267
Lithium Power	Maricunga	13,584
Millennial Lithium	Pastos Grandes	13,862
Galaxy Resources	Sal de Vida	13,911
Bacanora	Sonora	14,300
Average		12,711

Source: Hardman & Co Research

In terms of unit production costs at Mariana, there are offsetting issues at play. The project has relatively lower lithium concentrations and higher concentrations of impurities (magnesium and sulphates) than other salars. On the positive side, Mariana's high transmissivity should make it more productive for its size, due to the flow rate. High concentrations of potash, a key by-product in brine, and favourable logistics, such as proximity to rail transport, will have a significantly positive effect on Mariana's unit production costs.

Average production cost for other brine projects is US\$3,142/t

The production cost for other small explorers and developers is in the range of US\$2,495/t to US\$3,910/t of LCE, with an average of US\$3,142.

Lithium carbonate cost assumptions – other brine projects

US\$/t	Project	Est. price
Lithium Americas	Cauchari-Olaroz	2,495
Neo Lithium	3Q	2,791
Lithium Power	Maricunga	2,938
Pure Energy Minerals	Clayton Valley	3,217
Millennial Lithium	Pastos Grandes	3,218
Galaxy Resources	Sal de Vida	3,410
Bacanora	Sonora	3,910
Average		3,142

Source: Hardman & Co Research

Until the PEA for Mariana is published, we can only make a guess at its unit production cost. At this stage, we are unsure whether potash will be accounted for in the revenue line or as a by-product credit offsetting production costs. For now, we will assume the latter. Taking into account the issues we noted above, including the likely significant benefit from potash, we are using an assumption of US\$3,300/t for Mariana, until more guidance is forthcoming.

Despite the vast amount of information available, establishing a reasonable degree of confidence regarding the demand/supply balance for lithium, and (critically) its impact on pricing in the coming years, is more difficult than it might appear. Yes, we'll see an explosion in demand, and, yes, we'll see an explosion in supply, but predicting the trajectory of exponential growth with any degree of accuracy is fraught with difficulty, especially as the compounding effect of even modest errors is multiplied greatly over the years. Indeed, one is reminded of the McKinsey

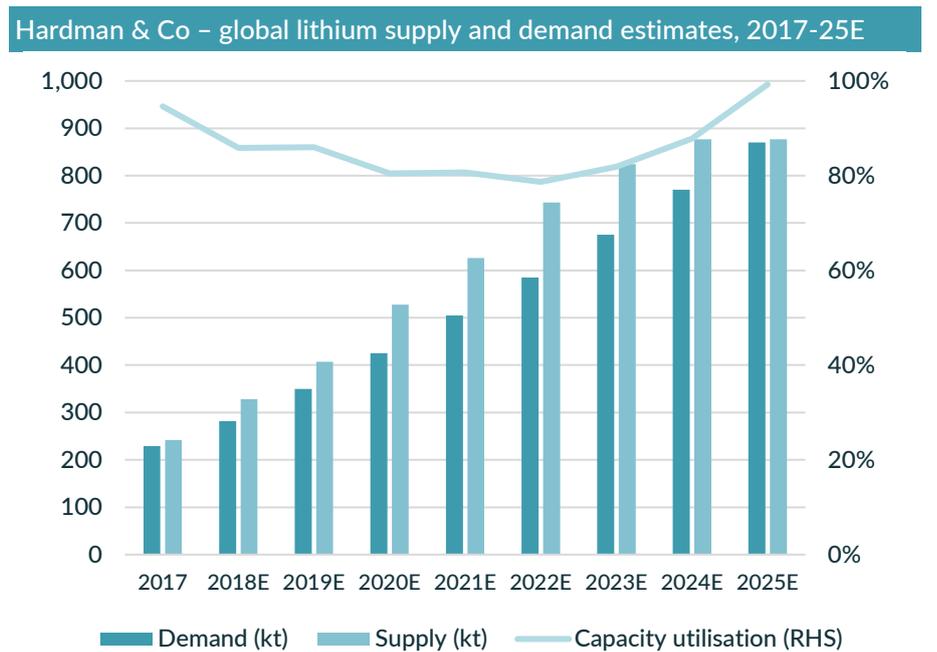
forecast from the 1990s for mobile phone penetration, which undershot the actual outcome by a factor of 125x. The embracing of the transition to EVs by the auto industry and governments will act as a powerful tailwind.

Global EV sales – including battery vehicles and hybrids – increased from 1.2m units in 2012 to 3.0m units in 2017, and are poised to enter the exponential phase of the curve. Last year, EVs accounted for 1% of the global vehicle market, and this is expected to grow by 12-16x by 2025-26. Geographically, the driving force will continue to be China, which is expected to maintain its dominance, with more than a 50% global market share throughout this period.

Our current (very speculative) estimate for 2025 global lithium demand is 870,000 tonnes LCE

In terms of converting EV battery and energy storage growth into lithium demand, the consensus estimate is now around 900,000 tonnes of LCE – with a range of about 800,000 to 1,000,000 tonnes of LCE. Our current estimate for 2025 global lithium demand, which is very speculative, as it has to be at this point, is 870,000 tonnes LCE.

Forecasting lithium supply is complicated by the lead times and ramp-ups for new mines, especially when it comes to brine deposits, and the balance between mine supply and downstream conversion capacity. While it's nigh on impossible to have confidence in lithium supply and demand estimates from any source, our estimates are summarised in the chart below.



Source: Hardman & Co Research

On this basis, capacity utilisation bottoms in 2022E, but would be fully utilised again by 2025. While the numbers are different, the slide below from SQM's recent investor day on global lithium supply and demand last month portrays a similar outlook.

SQM: global lithium supply and demand

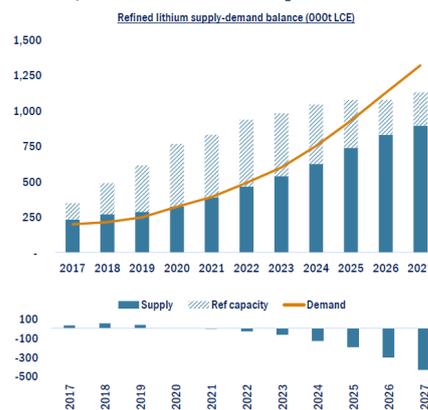


Source: SQM

In contrast, the Roskill consultancy is projecting lithium demand at 1.2m tonnes by 2027. From its non-consensus perspective, it currently sees the market in deficit from 2021 onwards.

Roskill: global lithium supply and demand

Risk-adjusted supply growth forecast to keep pace with demand till early 2020s, after which new production required



- Planned expansions at new producers
- Set-back and delays at new producers and expansion may widen the 'gulf of opportunity' for new producers
- Deficit exceeding 100kt LCE by 2024 forecast, though capacity sufficient to meet demand until 2026
- Further capacity expansions are expected at major processors
- Almost 200kt additional lithium production required each year beyond 2025 to meet demand growth
- Significant investment in expansions and new producers required

Roskill

Source: LME, Roskill

The recent bounce in lithium prices was helped by comments from Australian-based producer, Orocobre. On 31 October 2018, the company published its "Quarterly Report of Operations" for the September quarter. On the outlook for the lithium market, the report noted.

"The market in China has experienced some volatility linked to changes in the EV subsidy policy, a subsequent shift toward high nickel cathode, some new supply

entering the market from the Qinghai region and some macro-economic factors. However, the overall supply and demand market picture has not altered significantly. The Company's view remains that tight market conditions will persist with some lumpiness or variability to be expected as the market grows, and at times, becomes more exposed to short-term macro-environmental factors."

During the conference call, Orocobre's Managing Director and CEO noted.

"The backdrop (for price negotiations) is getting more attractive than where it was a month ago. If we look at what's happening in terms of Chinese spot prices, until early September, late September, that period, we were pretty well hitting a bottom there. Since then, we've seen some commentary coming out of China where producers are now putting up prices, there's some resistance from consumers, but the psychology is changing. There's a big ramp up in demand off the busy period in manufacturing from here through to the Chinese New Year and that backdrop is a change in psychology that we were expecting. We've seen all the destocking of inventories at this point of time and now you're seeing some restocking. I'm not going to give guidance on pricing, but the psychology of the market is in a better place than where it was a month ago."

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