



Widespread lithium mineralization hosted in claystone units at Rockland Resources Ltd.'s Lithium Butte Property in Utah.

UP AND COMING

THE EMERGENCE OF SOFT-ROCK LITHIUM "CLAY" MINING

ROCKLAND POSITIONED AS UTAH'S LEADING LITHIUM-CLAY EXPLORATION COMPANY WITH DISTRICT-SCALE UPSIDE AND PERMITTING FOR MAIDEN DRILL PROGRAM IN PROGRESS

Sediment-hosted lithium deposits represent a significant and yet untapped natural resource. This is about to change, with several projects in the Western United States pushing to start construction of sizeable mines in order for the nation to become less dependent on imports. While Tesla and Albemarle have dwelled upon novel lithium extraction methods for clay deposits, the market has demonstrated with pilot plants and simple flowsheets that processing with industry-standard methods is highly economic and competitive with brine operations in South America. Importantly, sedimentary lithium mines with on-site sulfur plants promise to be energy-independent – and even net-sellers of energy – with minimal water-usage for lithium extraction. As such, sediment-hosted lithium deposits can achieve a smaller carbon footprint with less environmental impacts than its brine and hard-rock counterparts.

In the past, Rockland's President & Director, **Dr. Richard Sutcliffe**, advanced several big-name projects from exploration to production or until take-over by major mining companies. Now, he and CEO Mike England are running Rockland with a great team to advance the company's Utah lithium-clay properties in a similar fashion as other companies have proven already across the border in Nevada.

Members of Rockland's management team will be joining this year's [Zimtu Road-Trip](#) in Switzerland (Geneva and Zurich) and Germany (Frankfurt and Munich) on November 1-5, 2022. **To meet Rockland's management team and other CEOs** of Canadian-listed exploration, green-tech and sports-gear companies, secure your spot at select event locations by [clicking here](#).

Company Details



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ISIN: CA7736671008 / CUSIP: 773667100

Shares Issued & Outstanding: 38,124,448



Chart Canada (CSE)

Canada Symbol (CSE): [RKL](#)
Current Price: \$0.075 CAD (10/12/2022)
Market Capitalization: \$3 Million CAD

German Symbol / WKN: Not listed

All \$-figures in CAD unless otherwise stated





As shown in this report, the western part of the United States – first and foremost Nevada – is home to a number of large-scale lithium deposits hosted in sediments, typically within soft clay(stone).

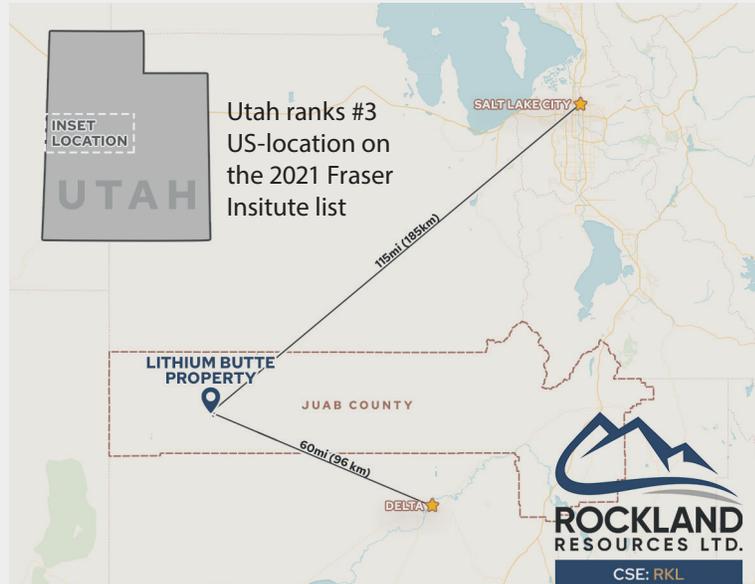
When crossing Nevada’s northern border to Oregon, you will find the largest known lithium deposit in the US (and maybe in North America), stored in lakebed clays: [McDermitt](#) (1.8 billion t @ 1370 ppm Li containing 13.3 million t LCE with a staggering in-situ-value of \$1 trillion USD at a market price of \$75,200 USD/t LCE).

When crossing Nevada’s eastern border to Utah, you will find the world’s largest bertrandite ore reserve, hand in hand with the largest producer of beryllium: The [Be Mine](#) from [Materion Corp.](#) (NYSE: MTRN; market capitalization: \$1.7 billion USD) located at prolific [Spor Mountain](#): “In addition to fluor spar, the Spor Mountain district contains the world’s largest economic deposits of beryllium and has produced uranium in the past.”

The geologic setting and history of volcanism and mineralization at Spor Mountain is highly prospective for lithium-enriched claystone units: “Feldspathic and montmorillonitic (smectite) clay alteration zones, including lithium-bearing trioctahedral smectite, closely follow and enclose beryllium ore...” ([Source](#))

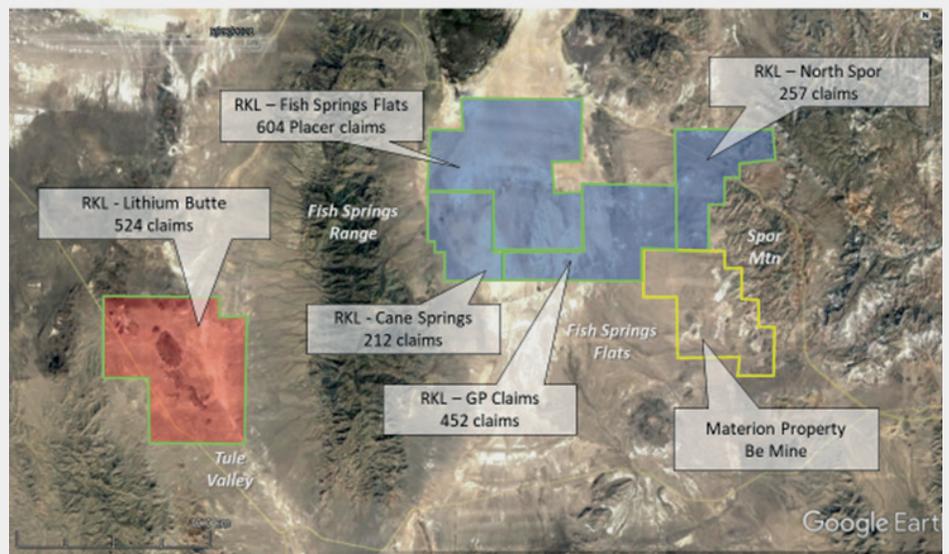
Spor Mountain has similar geology to Nevada’s hotbed of activity in the Clayton Valley, where [Albemarle Corp.](#) produces lithium from brine and started looking at its clay deposits last year: “Additionally, in 2021 [Albemarle] plans to commence exploration of clay and evaluate technology that could accelerate the viability of lithium production from clay resources in the region.”

Immediately east of Albemarle’s Silver Peak Mine, North America’s only lithium brine operation (in continuous operation since 1966), [Cypress Development Corp.](#) is advancing its [Clayton Valley Deposit](#), where lithium occurs within [montmorillonite clays](#), which can be cheaper to process than refractory clay minerals (e.g. hectorite) requiring roasting and/or higher acid consumption to liberate the lithium.



Located 185 km southwest of Salt Lake City, Rockland’s properties are road accessible and close to excellent infrastructure with power, rail and nearby communities thanks to Materion Corp.’s active beryllium mine.

Rockland Resources Ltd. – Lithium Portfolio, Juab County, Utah



Rockland Original Claims

Rockland New Claim Acquisitions

Property outlines are for indicative purposes only and intended to show approximate relative positions

“Our early work at Lithium Butte is demonstrating that the Property hosts a volcanic formation that has a unique endowment in light metals including lithium and beryllium. This formation exhibits strong similarities with the Miocene Spor Mountain Formation that hosts currently mined Be deposits. Our initial results at Lithium Butte suggests that the Spor Mountain Formation may be **more widespread than previously thought** and has encouraged Rockland to significantly extend its property position in this region.” (Dr. Richard Sutcliffe, Rockland’s President, on [August 4, 2022](#))

Rockland Resources Ltd. has positioned itself as Utah’s leading lithium-clay exploration company.

- Recently on [September 20](#), Rockland announced a major expansion of its property holdings to **16,219 hectares**, a district-scale land package

prospective for lithium clay and brine deposits.

- Rockland’s newly acquired claims contain beryllium (Be) mineralization with grades up to 4,810 ppm Be and are **contiguous with Materion Corp.’s producing Be Mine.**



- Rockland's newly acquired **Fish Springs Flat** claims "cover an area interpreted to be prospective for lithium brine mineralization." (Utah Geological Survey, 2020).
- Rockland's original claims, the **Lithium Butte Property** (4,460 hectares; ~10 km east of newly acquired claims), host highly elevated lithium grades in the primary Spor Mountain Formation Volcanic Beryllium-Tuff formation.
- **Alteration** of Lithium Butte's claystone has further enriched lithium concentrations.
- Rockland's sampling in May 2022 and a historic (2010) database indicate **widespread lithium mineralization** hosted in clay or claystone volcanic tuff units. Initial grab samples at Lithium Butte showed lithium grades of **up to 4,080 ppm** on [June 29, 2022](#).

• On [August 4](#), Rockland reported additional grab sample assays, showing significant beryllium grades between **1,790 and of 4,810 ppm Be**. These samples also contain anomalous lithium with grades between 380 and 440 ppm Li. The Be-mineralized samples were collected from an outcrop of bedded tuff-breccia approximately **340 m east-southeast** of the claystone tuff-breccia samples that contained previously reported high lithium values ranging from 1,200 to 4,080 ppm Li.

• Subsequent channel sampling in [July 2022](#) has revealed **25.2 m @ 1,388 ppm Li** including **8 m @ 2,155 ppm Li** and **0.7 m @ 3,540 ppm**. The sampled section represents the upper part of the prospective unit and the mineralization is open at depth.

Dr. Richard Sutcliffe, Rockland's President, stated on August 23: "These channel sample results are an excellent validation of the initial grab sample results from this Project that Rockland reported in June. Importantly, the samples confirm a significant stratigraphic thickness of lithium-rich mineralization on the Property. To advance our exploration program, we have recently established an office in Delta, Utah and are in the process of set-



Rockland recently conducted [additional sampling](#) from the clay altered rhyolite tuff breccia that returned up to 4,080 ppm Li. The exposure has a stratigraphic thickness estimated to be >20 m and contains at least 2 intervals of claystone mineralization, each of which is several meters in thickness. Channel sampling was conducted across the stratigraphic section and along strike on an exposed dozer road cut. A total of 24 additional samples including 20 channel samples have been sent for analysis ([assays pending](#)).

ting up a facility to provide rapid analysis of rock and soil samples using a Laser Induced Breakdown Spectrometer (LIBS). This technology will allow Rockland to quickly evaluate additional exploration and drill targets. We look forward to developing this program to evaluate regional lithium mineralized claystone targets in the Basin and Range Province of Utah. The Company is currently staking additional claims and we will provide additional Property details once staking has been completed."

Dr. Richard Sutcliffe, Rockland's President, stated on September 22: "Rockland has had the advantage of being an early mover in the acquisition of lithium exploration properties in the Basin and Range Geological Province of western Utah. The Company has acquired an extensive land position in two adjacent basins that both have the hallmarks of the lithium claystone mineralization model including lithium enriched volcanic units, geothermal fluid activity, restricted

basins, claystone horizons, and favourable structure. Our field team is currently conducting geological mapping and soil surveys that utilize an in-house LIBS analyzer capable of lithium analysis to rapidly evaluate targets for future drilling."

Today, Rockland [announced](#) the engagement of EM Strategies, a West-Land Resources Inc. company based in Reno, to assist with [permitting of a maiden drill program](#) at Lithium Butte. **Mike England, Rockland's CEO, stated:** "Our field geological team has been making terrific strides in locating both historic and new occurrences spread out over both our recently staked basins in Utah. As we continue to define new targets we feel this is the right time to begin the drill permitting process on initial high priority lithium targets." **Dr. Richard Sutcliffe added:** "Management has moved quickly on the Lithium Butte project by engaging EM Strategies at this early stage to get a jump on the permitting process directed at the Company's maiden drill program."



Rockland not only holds a large property package in Utah but also several properties surrounding one of the world's largest lithium-clay resources: The [Sonora Lithium Deposit](#) in northern Mexico, owned by Ganfeng Lithium from China (the world's largest lithium producer supplying Tesla).

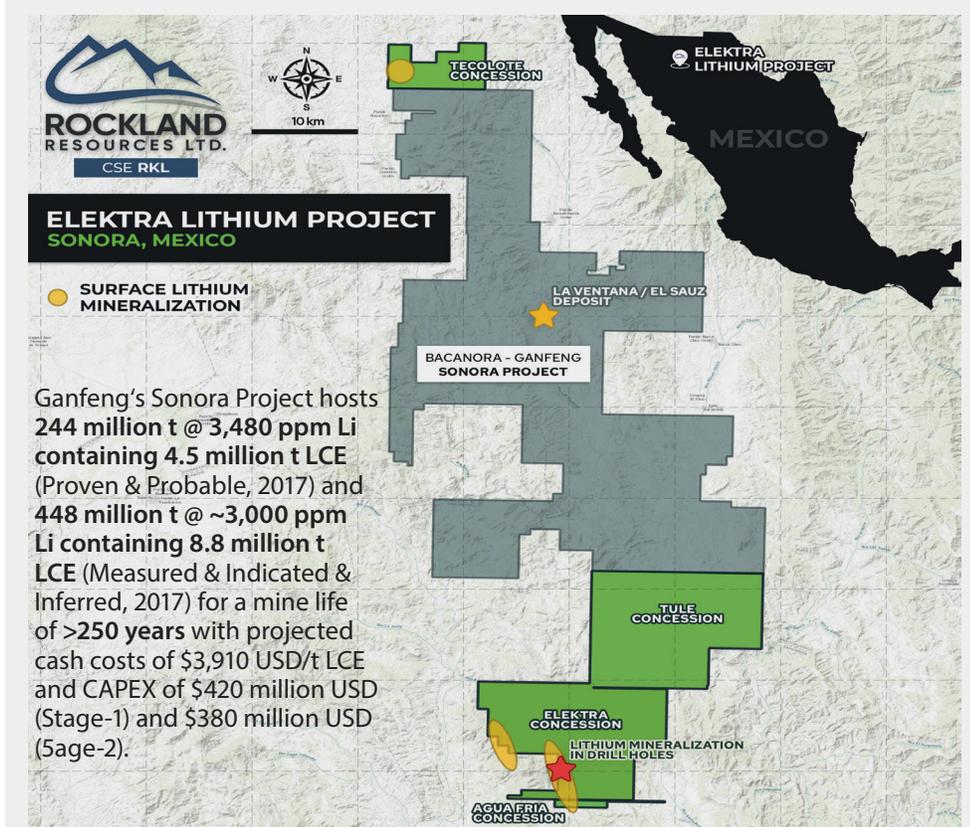
- Rockland's [Elektra Project](#) comprises 4 exploration concessions totalling 41,818 hectares (418 km²).
- Rockland's concessions are contiguous to the north ([Tecolote](#)) and south ([Tule](#)) of Ganfeng's Sonora Property, covering similar mineralized lithium-bearing clay units localised within volcanoclastic sediment successions in the basins. The [Agua Fria](#) target is located southwest of the Sonora Property and was the site of the discovery of significant lithium-bearing clay units in surface exposures and drilling in 2016-2017.
- Only a limited portion of the Agua Fria target has been drill tested to date: Results from a maiden drill program (2017; total of 1,762 m in 16 holes) were encouraging with several intervals of **>900 ppm Li over widths of up to 90 m**. The best drill intercepts include hole AF 17-001 returning 33 m @ 1,058 ppm Li (from a depth of 3 m) and 21 m @ 1043 ppm Li (from a depth of 54 m). Hole AF 17-014 intersected 24 m @ 1050 ppm Li (from surface).

• Agua Fria was interpreted as having **similarities to the La Ventana Zone on the Sonora Property** and is characterized by fine-grained minerals, a portion which contain lithium, providing significant potential to increase plant-feed grades by beneficiation.

• Additional lithium anomaly targets on [Tecolote](#) have not been drill-tested yet.

• Lithium-bearing clay beds tend to weather recessively, and exposure can be limited, with extensive cover of alluvium and/or younger basalt flows. However, the lithium-bearing units exhibit **strong continuity under the cover** and remain attractive targets that were not drilled in previous programs.

• Initial exploration activities by Rockland on the Elektra Project may include reloca-



The Sonora Lithium Project: "A potentially vast lithium deposit in Mexico's northern Sonora state could be worth as much as 12 trillion Mexican pesos (\$602 billion), according to a recent finance ministry report, or over a third of the country's projected economic output this year. Mexico hopes its reserves of the key battery component will help it benefit from a global shift toward electric vehicle production that has turbo-charged demand... **President Andres Manuel Lopez Obrador has urged the private sector to work with the new state miner, saying the size of the investment needed means the government needs partners.**" ([Source](#))

ting the drill holes that were completed in 2017, mapping and sampling the lithium-bearing clay beds previously identified, and mapping the stratigraphy. Upon receipt of assay results, a larger Phase-1 exploration program is planned.

• The Elektra Project was initially evaluated in 2015 and the current Mexican owners, and members of the technical team, remain involved. Work conducted from 2015 to 2018 is readily available to Rockland and was completed to 43-101 standards and represents an opportunity to fast-track exploration activities on various targets on the Elektra Project **if the current situation with the Mexican Government nationalizing all of its lithium assets (April 2022) gets resolved in favor of foreign companies such as Rockland.** "The cash-strapped government hopes that taking control of its lithium can pay for new spending, but it has so far released few details on how far it

will intervene in the market or how private companies can participate in the country's lithium sector." ([Source](#))

• On [March 22, 2022](#), Rockland announced the addition of a prominent new team member to its Mexican group and the commencement of a reconnaissance field program on its Elektra claystone lithium project located in northern Sonora, Mexico. Miguel Angel Romero Gonzalez joins Rockland's Mexican group to advise the company on tenure and legal issues. Señor Romero is a prominent lawyer within the Mexican mining industry, a former General Director of Mines in the Ministry of Economy from 2010 to March 2013, within that period he coordinated the efforts to update the Regulations of the Mining Law and collaborated to make public the mining cartography of the country. He is also an Honorary Member of the Business Mining Council of Mexico (CONMIMEX).

As an effective exploration tool for its Utah properties, Rockland uses below [LIBS analyzer](#), which performed a case study at the Agua Fria concession of the Elektra Project in Mexico in 2018 (see below). On [November 16, 2021](#), Rockland announced the acquisition of the Elektra Project and can earn a 100% interest through cumulative payments of 10 million common shares and \$1.5 million USD over 48 months, with a 2% NSR granted to the vendors and Rockland has option to purchase 50% of the NSR for \$1 million at any time.

SciAps ApNotes

rev March 2018



Direct Measurement of Lithium in the Field Using SciAps Z300 Hand Held LIBS

Introduction

The capability to conduct in field, direct measurement of lithium [Li z=3] is now a reality. Using SciAps hand held Z300 LIBS analyzer, Lithium Australia NL (LIT), an Australian based, ASX listed Lithium explorer and vertically integrated lithium processing technology developer, conducted real time measurement of lithium during exploration drilling at the Agua Fria prospect in Sonora, Mexico. This case study presented here reports some of the data generated during this campaign and demonstrates that the SciAps hand held Z300 is a fit for purpose tool for the direct measurement of Li under real field conditions.

The recent surge in demand for lithium, has seen a rapid increase in exploration for and development of lithium projects worldwide. Although there have been cases where fpXRF have been successfully utilized to test associated elements and assist with lithium exploration in the case of Li-Pegmatites the direct measurement of Li is not possible using fpXRF. Hand held Laser Induced Breakdown Spectroscopy or LIBS analyzers allow measurement of light elements as well as many other elements typically analyzed with conventionally used techniques such as fpXRF. This presents opportunities for the development for new applications such as the in-field analysis of geochemically and economically important elements such as Li, B, Be, C and Na.

Data and Discussion

A SciAps Z300 field-portable LIBS analyzer was used for sampling control during drilling. The field-portable analyzer was calibrated for lithium against samples with lab assays from various clay samples from the Agua Fria prospect collected during earlier trenching and sampling. Sample pellets were pressed using a portable REFLEX press. Three Z-300 LIBS readings were averaged for each pressed sample pellet. Readings took in the order of 3 seconds each consisted of a raster pattern testing 12 locations and averaged to a single value. As with the effective use of any analytical technique good sample handling procedures, appropriate testing methodology and quality control are essential for success.



Fig. 1. Sample pelletizing using a Reflex Press and sample analyses using SciAps Z300 field-portable LIBS analyzer.

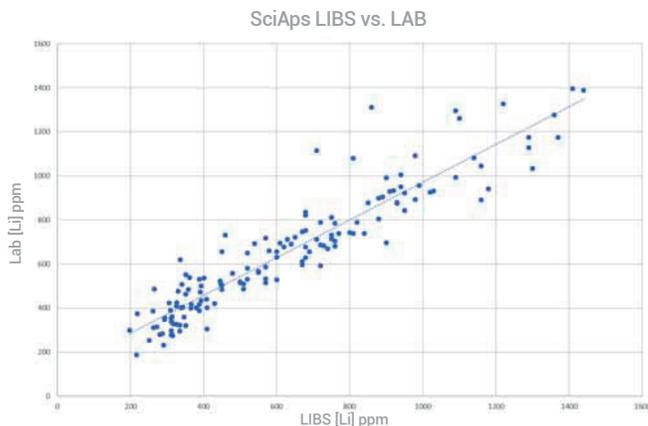


Fig. 2. Comparison of Li ppm between laboratory and hand-held LIBS $R^2=0.8722$ $n=148$ over 4 drill holes. Data courtesy of Lithium Australia NL.

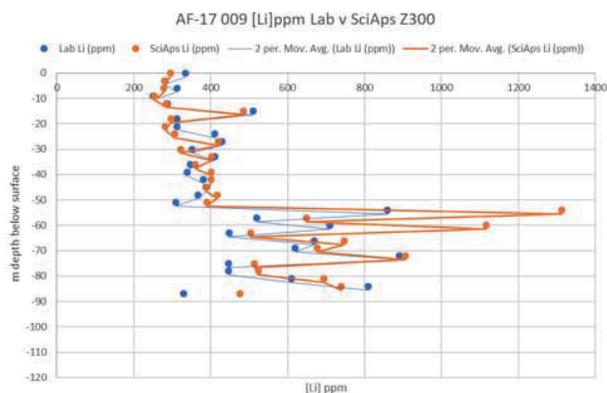


Fig. 3. Comparison of Li ppm between laboratory and hand-held LIBS downhole on AF-17 009. Data courtesy of Lithium Australia NL.



During lithium's last bull run, sediment-hosted lithium projects had a tough time competing against brine and hard-rock projects due to uncertainty among investors if processing into lithium carbonate was feasible for this "unusual" deposit type. This has changed dramatically over the last years with sedimentary lithium projects, especially in the US, gaining strong investors' interest, resulting in respectable market valuations (see table on the next page).

Historically, there has not been any meaningful production of lithium from sediments in the western world ("whilst lithium-rich clays have been mined in the past, this was for the 'clays' themselves which had properties useful for drilling muds, paints and cosmetics, rather than their lithium content"; [MinEx Consulting, 2019](#)). As such, only 2 main ways of producing lithium exist today: Ore mining (hard-rock) and brine extraction.

While traditional hard-rock mining techniques use large machinery, soil removal, extensive crushing and grinding, and heavy chemicals for processing, brines use large amounts of water and chemicals to separate lithium from other salts within the solution. On top of that, traditional brine extraction is inefficient and time-consuming. Both hard-rock mining and brine extraction are linked to environmental damages and socio-economic pressures (e.g. [Rio Tinto in Serbia](#) with [jadarite](#) as an atypical sedimentary ore mineral; or [water-related conflicts in South America](#), where brine extraction requires ~2.2 million litres of water to produce 1 ton of lithium).

Today, investors' sentiment for sedimentary lithium deposits is much better and companies active in this space enjoy high valuations. Several projects completed compelling Preliminary Economic Assessments (PEA), Pre-Feasibility Studies (PFS) or Feasibility Studies, demonstrating favorable economics (some have been running pilots plants to showcase simple flowsheets for conventional processing methods). The results gathered over the last years are impressive, showing low operating costs thanks to very fast lithium extraction methods, with the key being:

Lithium Deposit Types

	Sediment-Hosted	Brine	Hardrock
Ore Minerals	Smectite, Illite, Jadarite, Searlesite (+combinations & others)	Salars, Geothermal, Oilfield, Ocean	Spodumene, Lepidolite, Petalite, Zinnwaldite, Amblygonite, Eucryptite
Typical Grade (ppm Li)	800 - 3,000	500 - 1,000	4,500 - 7,000
Mine Product	Lithium Carbonate (Li ₂ CO ₃)	Lithium Carbonate (Li ₂ CO ₃)	Lithium Concentrate (6% Li ₂ O)
Production Steps	Mining Acid Leaching Evaporation Crystallization	Pumping of Brine Evaporation Crystallization	Mining Crushing and Grinding Roasting Acid Leaching Evaporation/Crystallization
Estimated Cash Costs (USD/t LCE)	2,500 - 4,000	2,500 - 4,000	>6,000

Source: Rockstone Research, industry and company reports

In 2020, almost half (47%) of global lithium production came from Australian hard-rock mines. Other main suppliers were Chile (21%), China (17%), Argentina (7%), and a group of countries including Zimbabwe, USA, Brazil and Portugal (7%). ([Source](#))

There's no need for a lengthy evaporation process thus enabling a **fast source to obtain lithium** at competitive costs with minimal environmental impact.

More advantages over brine and hard-rock projects:

- Many sediment-hosted lithium deposits occur at shallow depths (low-cost mining) with low stripping ratios (waste-to-ore).
- Minimal to no drilling and blasting required during mining.
- Minimal requirement for energy-intensive crushing and grinding (soft sedimentary rocks and clays).
- Low water consumption during processing (much of the water needed can be recycled in a close-loop system).
- Sedimentary lithium deposits can be very large, providing important scale to support high output and long mine lifes.
- Energy-independent: Mining operations may include a sulfuric acid plant on-site which converts molten sulfur into sulfuric acid. This process produces steam, which can be used to generate enough carbon-free power for the entire processing facility. On-site sulfuric acid plants reduce the number of trucks on the road as each ton of sulfur can create 3 tons of sulfuric acid (sulfur is much safer to transport than sulfuric acid).

• Carbon emission intensity per ton of LCE is projected to be competitive to South American brine operations and substantially lower than US and Australian hard-rock operations.

The low-carbon option: Sediment-hosted lithium mines!

During the 2010s, when the first lithium-clay exploration projects in North America became active, skeptics moaned that processing might prove difficult and expensive compared to hard-rock mining and brine extraction.

With lithium prices having appreciated from about \$10,000 USD/t LCE in the late 2010s to now >70,000 USD/t LCE, projected production costs of lithium-clay projects (between \$2500 and \$4,100 USD/t LCE) are not considered "high" anymore, especially since hard-rock mining and processing oftentimes cost in excess of \$6,000 USD/t LCE and also being much more sensitive to elevated energy prices.

Some sedimentary lithium-deposits contain valuable by-products, such as **Rhyolite Ridge** in Nevada (revenue generated from boron production is estimated to cover all operating costs for lithium production) and **Sonora** in Mexico (sulfate of potash). Magnesium, potassium and rare earth oxides (scandium, dysprosium and neodymium) are potentially recovered from a lithium-enriched leach solution during processing.

Although a little outdated, the figure to the right visualizes some very large sedimentary lithium deposits. Although McDermitt currently has the largest resource within this select peer-group, Jindalee Resources Ltd. has the lowest market value (\$127 million AUD). Although Rhyolite Ridge and Big Sandy appear small and insignificant, both project-owners enjoy significant market capitalizations: Almost all of [Arizona Lithium Ltd.](#)'s market value (\$186 million AUD) is based on **Big Sandy** (Lordsburg Project very early-stage) hosting 33 million t averaging 1,850 ppm Li containing 320,000 t LCE (Indicated & Inferred, 2019). All of [Ioneer Ltd.](#)'s market value (\$1.3 billion AUD) is based on **Rhyolite Ridge** hosting 60 million t @ 1,800 ppm Li containing 580,000 t LCE (Proved & Probable Stage 1 + 2 Quarry, 2020) with a current mine life of 26 years to produce 20,600 t LCE annually, making it the most-advanced lithium project in the US (CAPEX: \$785 million USD; construction-ready by Q4 2022) and expected to be one of the lowest-cost lithium producers in the world (only \$2,510 USD/t LCE) in part due to boron as a by-product.

Comparable Sediment-Hosted Lithium Deposits Tonnes vs Grade (contained LCE indicated by size of bubble)



Select Sediment-Hosted Lithium Deposits

Deposit	Location	Cut-Off Grade	Tonnage x Grade = Contained LCE	Projected Mine Life	Projected Average Annual Production	Projected Cash-Costs	Projected CAPEX	Owner	Stock Symbol	Market Cap.
McDermitt	Oregon, USA	1,000 ppm Li	1,820 million t @ 1,370 ppm Li = 13.3 million t LCE (Indicated & Inferred, 2022)	—	—	Low, in part due to potential for by-product credits (sulfate of potash)	—	Jindalee Resources Ltd.	ASX: JRL	127 million AUD
Clayton Valley	Nevada, USA	900 ppm Li	1,304 million t @ 905 ppm Li = 6.3 million t LCE (Indicated, 2020)	40 years with reserves of 213 million t @ 1,129 ppm Li = 1.3 million t LCE (cut-off: 400 ppm Li)	27,400 t LCE	3,387 USD/t LCE	493 million USD	Cypress Development Corp.	TSX.V: CYP	182 million CAD
Sonora	Sonora, Mexico	1,000 ppm Li	244 million t @ 3,480 ppm Li = 4.5 million t LCE (Proven & Probable, 2017)	>250 years with Resources (Measured & Indicated & Inferred: 559 million t @ ~3,000 ppm Li = 8.8 million t LCE)	17,500 t LCE with Stage-1 and 35,000 t LCE with Stage-2	3,910 USD/t LCE (3,418 USD/t LCE with potash by-product credits)	420 million USD (Stage-1) plus 380 million USD for Stage-2	Ganfeng Lithium Co Ltd.	SZ: 002460	2,615 million CAD (136 billion CNY)
Thacker Pass	Nevada, USA	2,500 ppm Li	179 million t @ 3,283 ppm Li = 3.1 million t LCE (Proven & Probable, 2018)	>46 years	30,000 t LCE for first 3.5 years then 60,000 t LCE (targeting 80,000 t LCE)	4,088 USD/t LCE (2,570 USD/t LCE with energy by-product credits)	1,059 million USD (Phase-1: \$246 million USD)	Lithium Americas Corp.	TSX: LAC	4,379 million CAD
TLC	Nevada, USA	1,000 ppm Li	449 million t @ 1,247 ppm Li = 2.98 million t LCE (Measured & Indicated, 2020)	—	—	—	—	American Lithium Corp.	TSX.V: LI	445 million CAD
Rhyolite Ridge	Nevada, USA	5,000 ppm B	147 million t @ 1,600 ppm Li + 14,200 ppm B = 1.3 million t LCE (Measured & Indicated & Inferred, 2020)	>26 years	20,600 t LCE	2,510 USD/t LCE	785 million USD	Ioneer Ltd.	ASX: INR	1,280 million AUD
Big Sandy	Arizona, USA	800 ppm Li	33 million t @ 1,850 ppm Li = 0.32 million t LCE (Indicated & Inferred, 2019)	—	—	—	—	Arizona Lithium Ltd.	ASX: AZL	186 million AUD

NOTE: Yellow highlighted market valuations based on nearly all of the referenced lithium-clay deposits. Some companies' market capitalizations are not only based on the referenced projects: **Ganfeng** focuses on brine projects in Argentina and also has stakes in hard-rock projects in Mali and Ireland; **Jindalee Resources Ltd.** also owns the Clayton North lithium-clay project in Nevada and 3 other projects in Australia (gold, iron ore, magnesite). **Lithium Americas Corp.**'s majority valuation due to brine projects in Argentina (spin-out of Rhyolite Ridge planned); **American Lithium Corp.**'s flagship project is not only TLC but also its advanced-stage Falchani Project ("the 6th largest hard-rock lithium deposit globally") and the Macusani Uranium Project ("one of the world's largest and lowest-cost uranium deposits"), both located in Peru. (Source: Rockstone Research, public company reports and financial company information as of October 7, 2022)



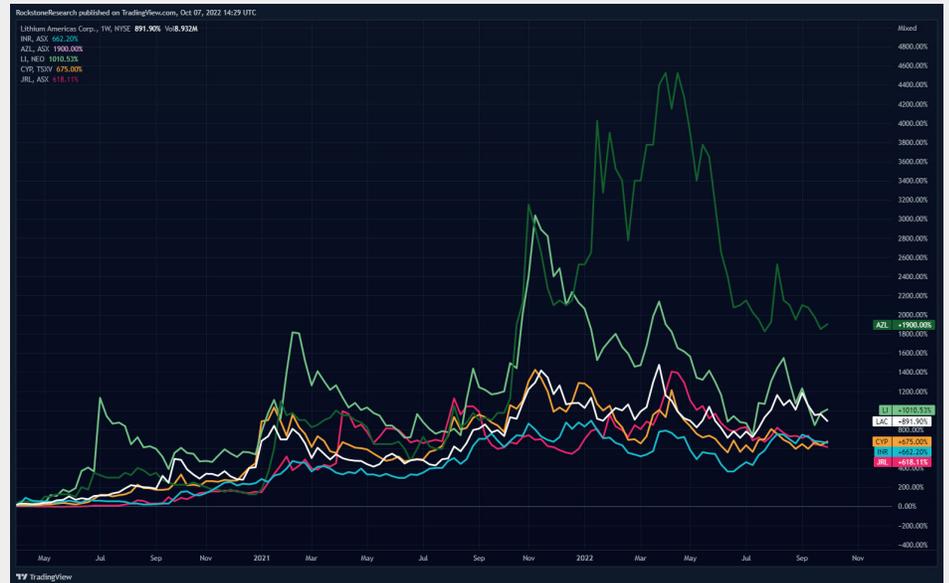
As lithium prices have increased more than 5-fold since 2021, many lithium exploration and mining stocks have sky-rocketed. Among the best performing lithium stocks is a deposit-type which has not seen much investors' love during the last lithium bull-run in the 2010s: **Sediment-hosted lithium deposits.**

Back then, some investors wrongly thought that something must be wrong with this deposit-type as no active mine was around for comparison to traditional hard-rock mining and brine extraction. However, the only reason why sediment-hosted deposits have not been in production yet is "because there was no necessity for it," said Spiros Cacos from Cypress Development Corp.

Now, there is necessity for lithium-clay deposits to be put into production in the US. Several projects in Nevada and Oregon are up and coming, and seen as the only viable option for the US to become independent from lithium imports. Geothermal lithium brine sources, such as Berkshire Hathaway Inc.'s [Salton Sea Project](#), still face "inherent risks".

As a curiosity, there's no place like the Western part of the US in terms of richness in sedimentary lithium resources, with the exceptions of single "monster"-deposits in Serbia and Mexico: The [Sonora Lithium Deposit](#), owned by Chinese lithium-giant Ganfeng, is so large (estimated at [\\$600 billion USD](#) according to a Mexican finance ministry report) that the government recently (April 2022) made the bold move of nationalizing all of its untapped lithium resources. This has created uncertainty in the Mexican exploration and mining industry, which "will likely delay the creation of a profitable lithium industry in Mexico," analysts recently told [S&P Global Commodity Insights](#). "This uncertainty may prevent Mexico from becoming an important lithium producer at a time when the world is scrambling for new supplies amid rising demand for electric vehicles."

In the US, sedimentary lithium projects are being fast-tracked to production. Lit-



Strong share price performance since April 2020: **1,900% AZL** (Arizona Lithium Ltd.), **1,011% LI** (American Lithium Corp.), **892% LAC** (Lithium Americas Corp.), **675% CYP** (Cypress Development Corp.), **662% INR** (Ioneer Ltd.), and **618% JRL** (Jindalee Resources Ltd.)

Lithium Americas Corp. touts its Thacker Pass deposit in Nevada as "the largest known lithium resource in the United States and the next large scale lithium mine".

With 2018-reserves of 3.1 million t LCE and 2018-resources of 8.3 million t LCE, Thacker Pass is a bit smaller than the McDermitt deposit in Oregon hosting resources of 13.3 million t LCE as of July 2022.

Australian-listed **Ioneer Ltd.** might be reaching commercial production faster than Lithium Americas as the latter meets resistance from several indigenous tribes opposing the mine project due to its location on a [sacred massacre-site](#). Tom Cotton, US Senator from Arkansas, recently [demanded answers](#) on partially Chinese-owned Lithium Americas potentially receiving US funding ("Worryingly, media reports indicate that Lithium Americas' largest shareholder is Ganfeng, a Chinese company with direct ties to the [Chinese Communist Party] CCP"). Lithium Americas' [October-2022 presentation](#) states Ganfeng as an insider with an 11.1% equity stake and that the Cauchari-Olaroz Project in Argentina is the "largest lithium carbonate brine operation under construction in over 20 years", with Gan-

feng being entitled to 51% of its future production (49% for Lithium Americas).

Ioneer's Rhyolite Ridge is "anticipated to come onstream in 2025", with a DFS (Definitive Feasibility Study; April 2020) making it "the most advanced lithium project in the US and expected to be the lowest cost lithium producer, in part due to the valuable boron co-product." Lithium Americas expects results from its Feasibility Study on Thacker Pass in the second half of 2022, whereas the US District Court, District of Nevada ("Federal Court") has recently scheduled an oral hearing for [January 5, 2023](#) for Thacker Pass' Record of Decision appeal.

Recently on September 19, **Cypress Development Corp.** announced to have achieved a significant milestone with the production of 99.94% lithium carbonate (Li₂CO₃) made from lithium-bearing claystone from its Clayton Valley Lithium Project in Nevada. CEO Bill Willoughby stated: "We are pleased to receive comprehensive assays validating the extraction process we have designed for our Project. Exceeding the standard for battery grade lithium carbonate [99.5% purity] checks-off an important goal for the Company and its further development of the Project." At present, Cypress is in the pilot-



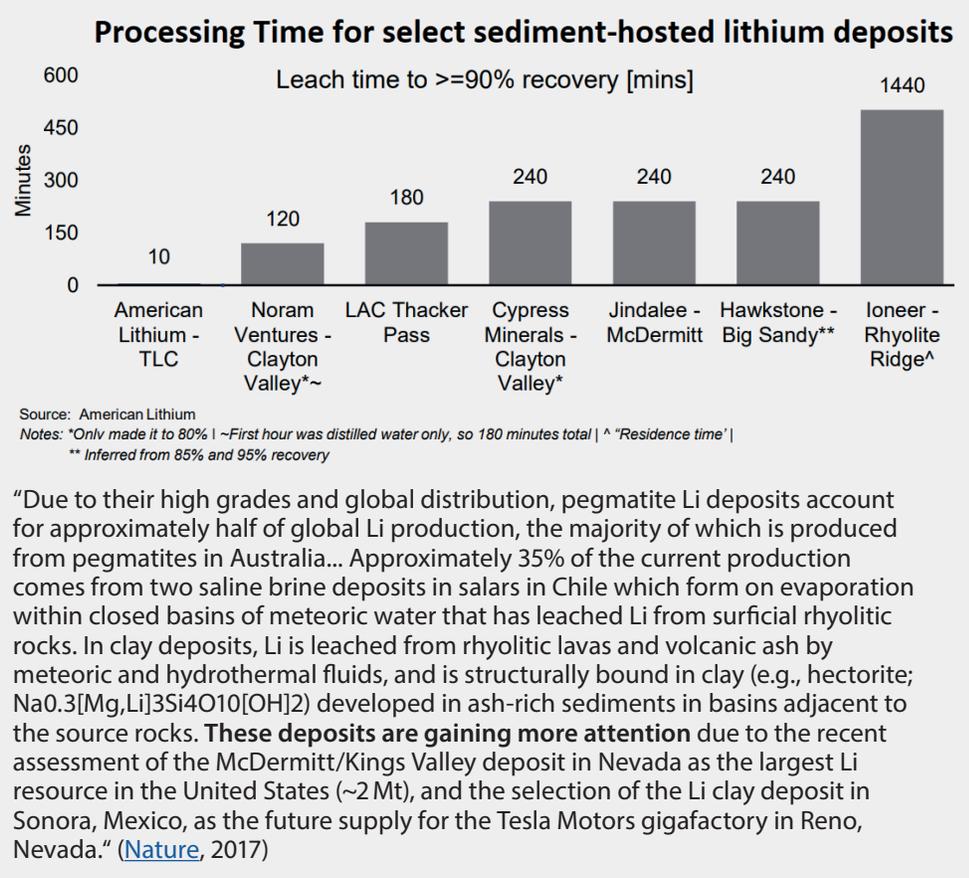
stage of testing material from its lithium-bearing claystone deposit and progressing towards completing a Feasibility Study and permitting, with the goal of becoming a domestic producer of lithium for the growing electric vehicle and battery storage market. Metallurgical testing indicates low cost processing can be achieved by leaching with low acid consumption (126 kg/t) and high lithium recovery over 85%. These high extractions prove the dominant lithium-bearing minerals present are not **hectorite**, a refractory clay mineral which requires roasting and/or high acid consumption to liberate the lithium. Self-generated power from a 2,500 tpd sulfuric acid plant is included in the project's Prefeasibility Study costs. In March 2021, Cypress announced the development of a lithium extraction pilot plant at del Sol Refining & Extraction facility, south of Beatty, Nevada. The operation of the pilot plant will provide essential data for a planned Feasibility Study and enable Cypress to produce marketing samples to support negotiations with potential offtake and strategic partners.

As noted on pages 2-3, Rockland's Utah properties share geological similarities with lithium-clays (and brines) found at Nevada's prolific Clayton Valley, where Cypress has delineated 1.3 billion t @ 905 ppm Li containing 6.3 million t LCE (Indicated, 2020) and Albemarle operates the Silver Peak Lithium Mine (in continuous operation since 1966). Note that lithium values and mineralization described in similar rocks on other properties are not representative of the mineralization on Rockland's properties, and historical work and activities on its properties have not been verified and should not be relied upon.

Excerpts from "[The Sedimentary Lithium Opportunity](#)" (2019):

Sedimentary deposits are considered to share some of the positive attributes of both pegmatites and brines.

Sedimentary resources are created when lithium is washed out of volcanic minerals into basins where it reacts with other minerals, creating chemical



structures in which the lithium is bound up in a mineral, but much less strongly bound compared to spodumene.

Sediments typically have the consistency of dirt, not hard rock, and sometimes easily break up when placed in water. If the lithium was not bound in a mineral at all, it would wash out in water forming a brine (this is typically not observed).

A number of leading projects are proposing not using calcination in their sediment processing flowsheets, meaning the lithium is bound in the mineral with a lesser strength compared to pegmatites. A chemical leach is used to extract the lithium from the sediment, after which the waste sediment can be stacked or back-filled into an open pit...

The benefit of processing a sediment containing "loosely bound" lithium is that the solid waste can be easily disposed of without diluting the original resource, similar to the waste materials from pegmatite processing... The "in between" strength of how

lithium is chemically bound in sediments results in some of their "best of both world" characteristics when compared to brines and pegmatites, and these strengths should be taken advantage of in future flowsheet development...

New leaching techniques and reagent management flowsheets may be helpful in unlocking these sedimentary materials to produce high lithium concentration, low impurity concentration leachates that can be more easily processed into battery-quality lithium chemicals.

The sedimentary deposit lithium projects are young, but I believe that some of them will be built in the 2020s. The healthy mining jurisdiction of Western North America, proximity of the deposits to American battery manufacturers, and possibility for low carbon intensity means that they have excellent potential for supplying lithium for batteries in the near future, and that they should be followed closely. [End of quote]



“Surging prices for lithium are intensifying a race between auto makers to lock up supplies and raising concerns that a shortage of the battery metal could slow the adoption of electric vehicles. Lithium carbonate prices in China, the benchmark in the fast-growing market, stand at about \$71,000 a metric ton, according to price-assessment firm Benchmark Mineral Intelligence. That is almost four times as high as a year ago... But lithium keeps rising, driven by a pickup in electric-vehicles sales in China, the

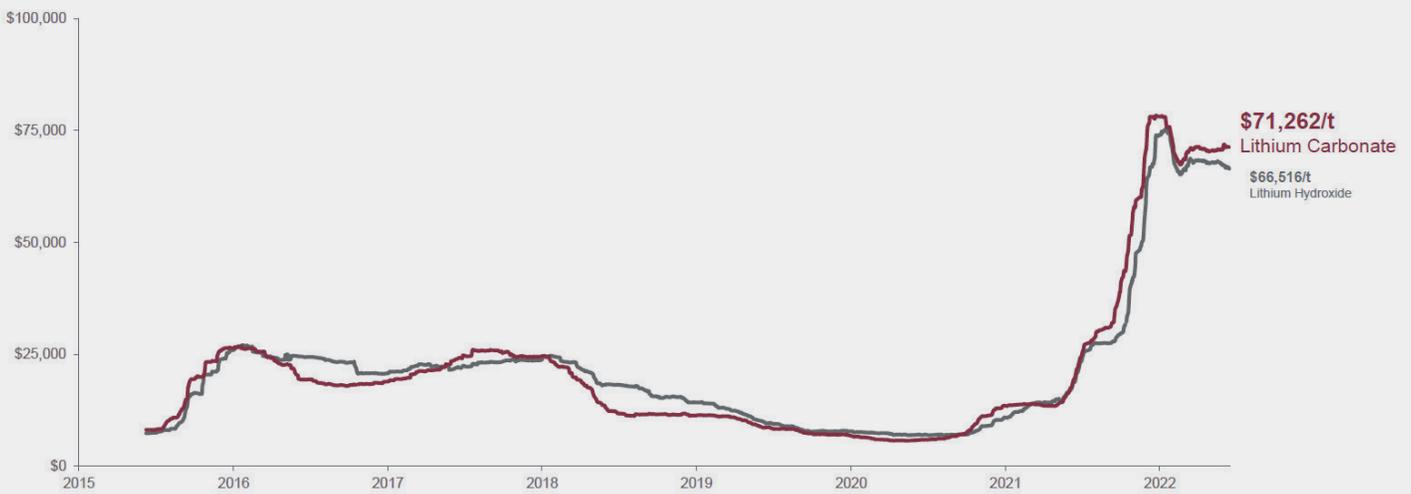
world’s biggest market for EVs... “Lithium is really following the Chinese EV market and that’s just taking off,” said Edward Meir, a metals consultant at brokerage ED&F Capital Markets. “This is a preview of what could await us in the U.S... Companies including General Motors Co., Ford Motor Co. and Volkswagen AG are racing to catch up with front-runner Tesla Inc., investing billions of dollars to bring EV factories online. All have struck deals with lithium producers to lock down scarce supplies... High prices have encoura-

ged companies to embark on lithium projects in Latin America and Australia, the two biggest-producing regions. But analysts say they will take years to hit full speed and ease the shortage, in part because left-leaning South American governments are angling for greater control over their countries’ natural resources. **Concerns about the effect of lithium mining on water supplies and other environmental worries also have held back efforts to crack open new deposits.**” ([The Wall Street Journal](#), September 21, 2022)

LITHIUM PRICES

Lithium carbonate prices have increased to over \$70,000/t in China

Lithium Prices
(\$/tonne, delivered China)

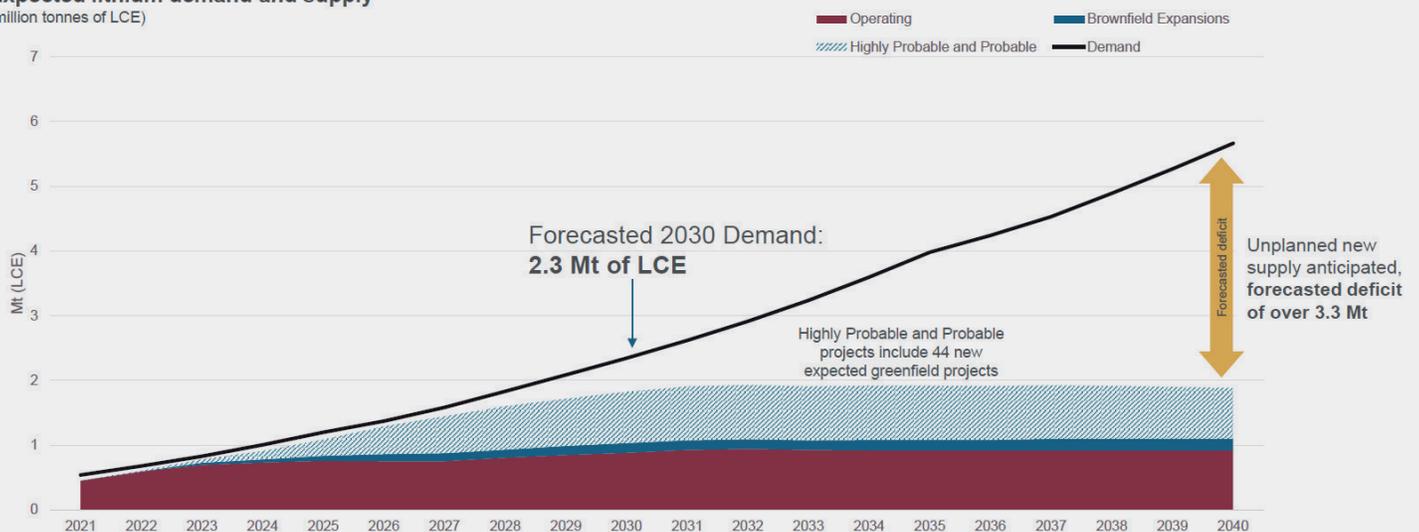


Source: Lithium Americas Corp., Asian Metal as of September 6, 2022

LITHIUM SUPPLY AND DEMAND

Significant supply gap emerging for lithium as market is expected to grow to over 2 Mt in 2030 and continue growing

Expected lithium demand and supply
(million tonnes of LCE)



Source: Benchmark Minerals Q2 2022, weighted. Projects on Care and Maintenance included in Brownfield expansions. Lithium Americas Corp.



Excerpts from [S&P Global Commodity Insights](#) (January 2022):

During the last lithium price bear run, from mid-2018 to mid-2020, investments shriveled from the specialty chemical. In early 2018, a lot of new spodumene ore capacity started running from previous investments in anticipation to an expected EV boom that didn't start until the second half of 2020; the oversupply crashed prices and halted investments.

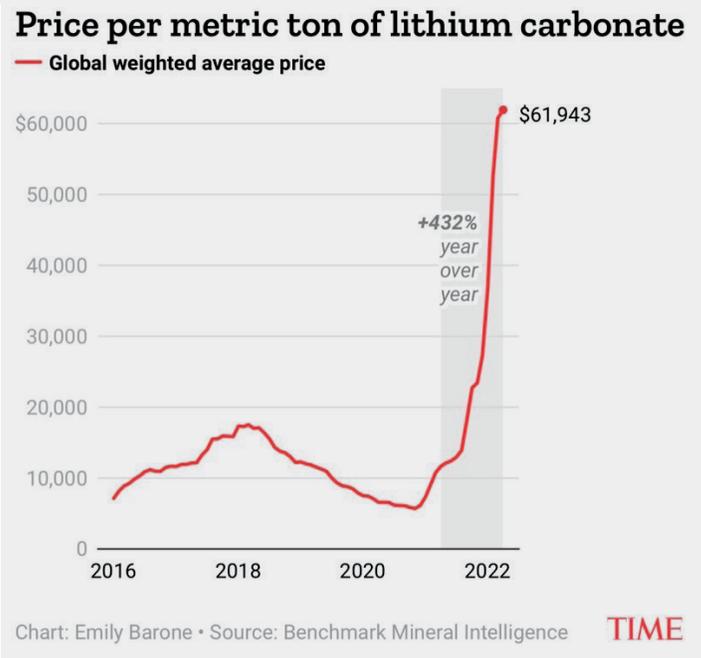
This time, the situation is completely different because demand is solid and growing much faster than supply. EV sales accounted for almost 20% of new car sales in China and over 25% in the European Union in recent months, forcing suppliers to try accelerating expansion and new projects. Financing and permitting, however, are considered significant hurdles."

Although the battery industry has been investing significantly in downstream battery capacity to power the surging EV demand, lithium is still getting less funding than required – and such investment could be too late to prevent a structural deficit in the coming years. "Unfortunately, battery capacity can be built much faster than lithium projects," said Joe Lowry, president of consulting firm Global Lithium. "The lack of investment in lithium capacity over the past five years will extend the supply shortage."

The situation is so critical that Lowry didn't want to make demand forecasts beyond 2027 – the supply-demand imbalance could be so serious that supply might end up capping demand, so forecasting beyond that could be misleading, he said. "Even well-capitalized major lithium companies have struggled to meet their expansion targets," Lowry said. "New producers have seen their project timelines extended in many cases due to Covid and related supply chain issues along with their 'learning curves'. OEMs and battery producers that assumed 'market forces' would ensure adequate battery raw materials are finally taking note of the supply-demand issue but much too late to solve the problem in the near to mid-term."



The outlook described by Lowry is confirmed by Platts' comparison between the expected supply and the expected demand until 2030 [...], which shows that supply should not reach the projected 2 million mt demand by the end of the decade. [End of quote]





With the United States producing less than 2% of the world’s lithium, the US Government has designated lithium as a “Critical Mineral” of strategic importance to the Nation’s economic and national security. The policy of the US Government is to reduce the nation’s vulnerability to disruptions in the supply chain of critical minerals. The “Critical Mineral” designation favors domestic sources of lithium that offer a secure, reliable source of supply.

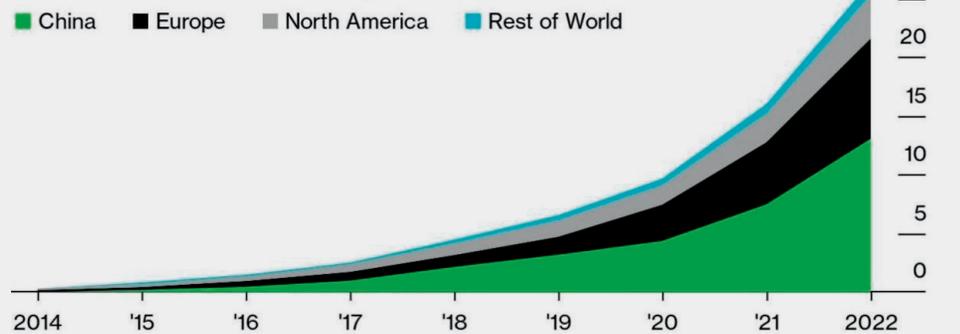
On [March 31, 2022](#), US President Biden invoked the Defense Production Act to accelerate domestic production of battery materials, including lithium.

On [June 9, 2022](#), the Biden Administration announced \$7.5 billion USD to build 500,000 EV charging stations across the US and \$7 billion for critical minerals supply, representing key pieces of the Bipartisan Infrastructure Law.

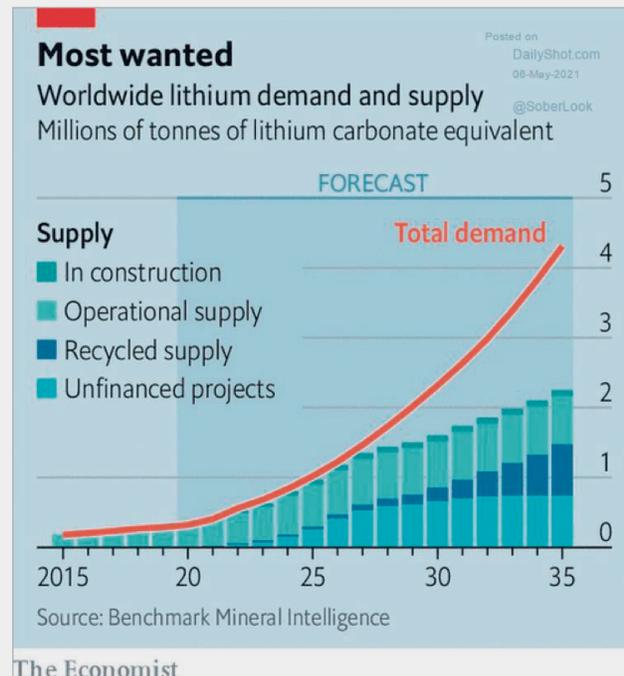
“The Biden administration has championed a policy initially adopted in the Trump era to bolster domestic production of “critical minerals,” a group of 50 metals that are essential to the nation’s economy and national security but are primarily mined and refined outside the United States. Biden has messaged this policy as part of his agenda for climate action. Electric vehicles, for example, rely heavily on supplies of metals like lithium, cobalt, nickel, manganese and graphite, but the global supply chain for all five metals is dominated by Chinese industry. The U.S. could hold enormous potential to produce these EV metals. Nevada is chock-full of lithium potential and experiencing a jolt in exploration for the metal.” ([Greenwire](#), August 2022)

“We believe that mining has to happen more in rich countries. Relying on materials sourced in faraway places means that consumers and regulators ignore the social and environmental impacts that enable their overconsumption. This has to change. Reducing overconsumption will become feasible when rich country governments approve more mines, allowing their citizens to experience the impacts of their overconsumption.” (“[Big Lithium Will Be Built, But By Who?](#)”, 2022)

Global EV fleet set to top 25 million this year



Source: BloombergNEF
Includes battery electric and plug-in hybrid passenger vehicles. 2022 is based on BNEF forecast.
European data includes EEA + UK.
Bloomberg Green

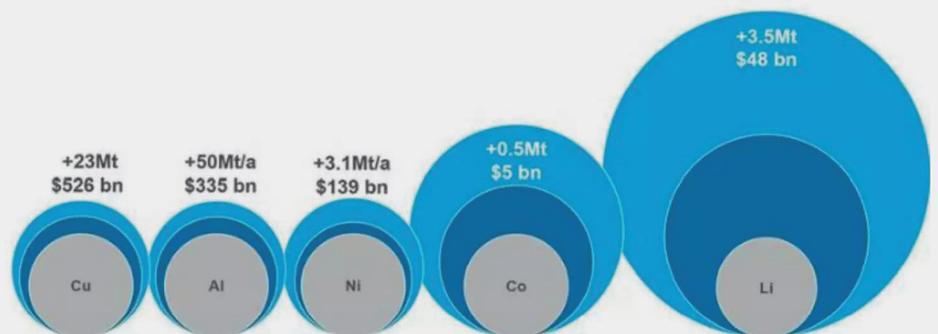


The Economist

The transition's material needs

The ET journey will require unprecedented levels of investment

The metal needed to support a 2 degree trajectory would require over \$1 trillion of investment over the next 15 years to meet targets to 2040.



“Mining companies need to invest nearly \$1.7 trillion in the next 15 years to help supply enough copper, cobalt, nickel and other metals needed for the shift to a low carbon world, according to consultancy Wood Mackenzie... Wood Mackenzie analyst Julian Kettle calculated miners needed to invest about \$1.7 trillion during the next 15 years to deliver a two-degree pathway — where the rise in global temperatures since pre-industrial times is limited to 2°C.” ([Reuters](#), 2021)

The US Government designated lithium as a “Critical Mineral” of strategic importance in December 2017 with Executive Order 13817: [“A Federal Strategy to Ensure, Secure and Reliable Supplies of Critical Minerals”](#)

“In a scenario like this, ‘Big Lithium’ could look radically different from ‘Big Oil’. It could be an industry that truly exists to serve people and the environment.”
([Source](#))



THE LITHIUM DEFICIT ROAD MAP

High probability of deficit if supply is not achieved in Level Two or Three scenarios by 2030

FUTURE LITHIUM DEMAND BY 2030



FUTURE MINE CAPACITIES AND THEIR OUTPUTS (SUPPLY)

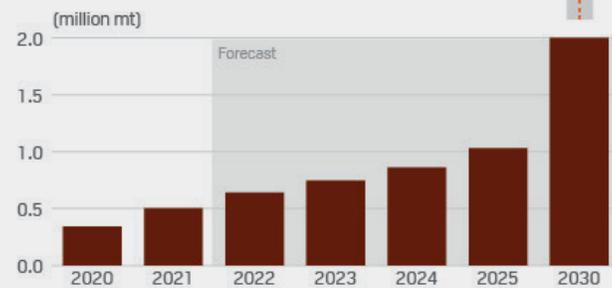


WILL FUTURE SUPPLY MEET LITHIUM DEMAND?

As companies and countries continue to eye net-zero targets and generate energy transition plans, the already growing global demand for lithium is poised to pick up momentum. But a lack of investment in new production of the key raw material used in electric vehicles and energy storage systems might lead to a structural deficit throughout this decade.

Even if all lithium projects expected to be online by 2030 are perfectly executed, there is still a 220,000 mt gap to the 2 million mt in demand expected in 2030.

LITHIUM DEMAND FORECAST

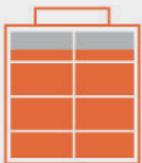
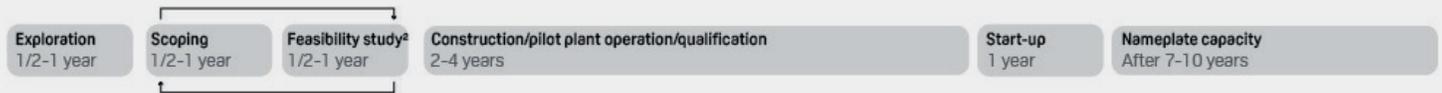


LITHIUM PRODUCTS AND ASSETS



Hard-rock assets will keep accounting for most of the lithium output in the future, but all production routes—even those which have never operated at a commercial scale—will be necessary to mitigate the increasing supply deficit. Within the product base, there will be limited integrated hydroxide capacity, meaning converters will keep playing an essential role in the future.

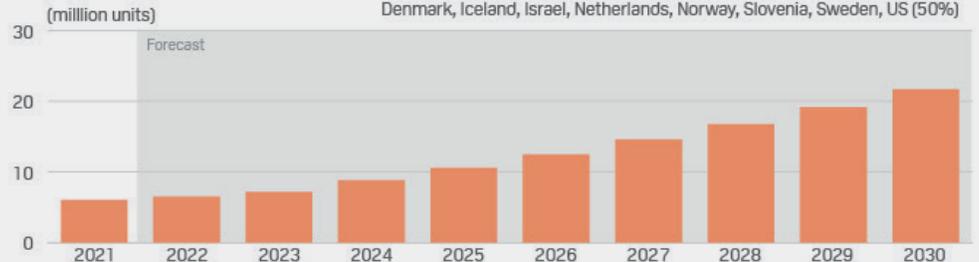
IT COULD TAKE ALMOST A DECADE FOR A MINING PROJECT TO REACH CAPACITY



84%

of all lithium produced is expected to be used in batteries for EV, ESS and portable electronics by 2025

GLOBAL EVs SALES FORECAST



The following countries are expected to phase out of ICE vehicles by 2030: Denmark, Iceland, Israel, Netherlands, Norway, Slovenia, Sweden, US (50%)

Note: This analysis is based on companies' announcements and considers the "best case" scenario. 1) The portion marked as lithium carbonate equivalent (LCE) product is either because the owner has the option to produce both carbonate and hydroxide, or because the expected output was announced in LCE only. 2) Some projects might do several feasibility studies

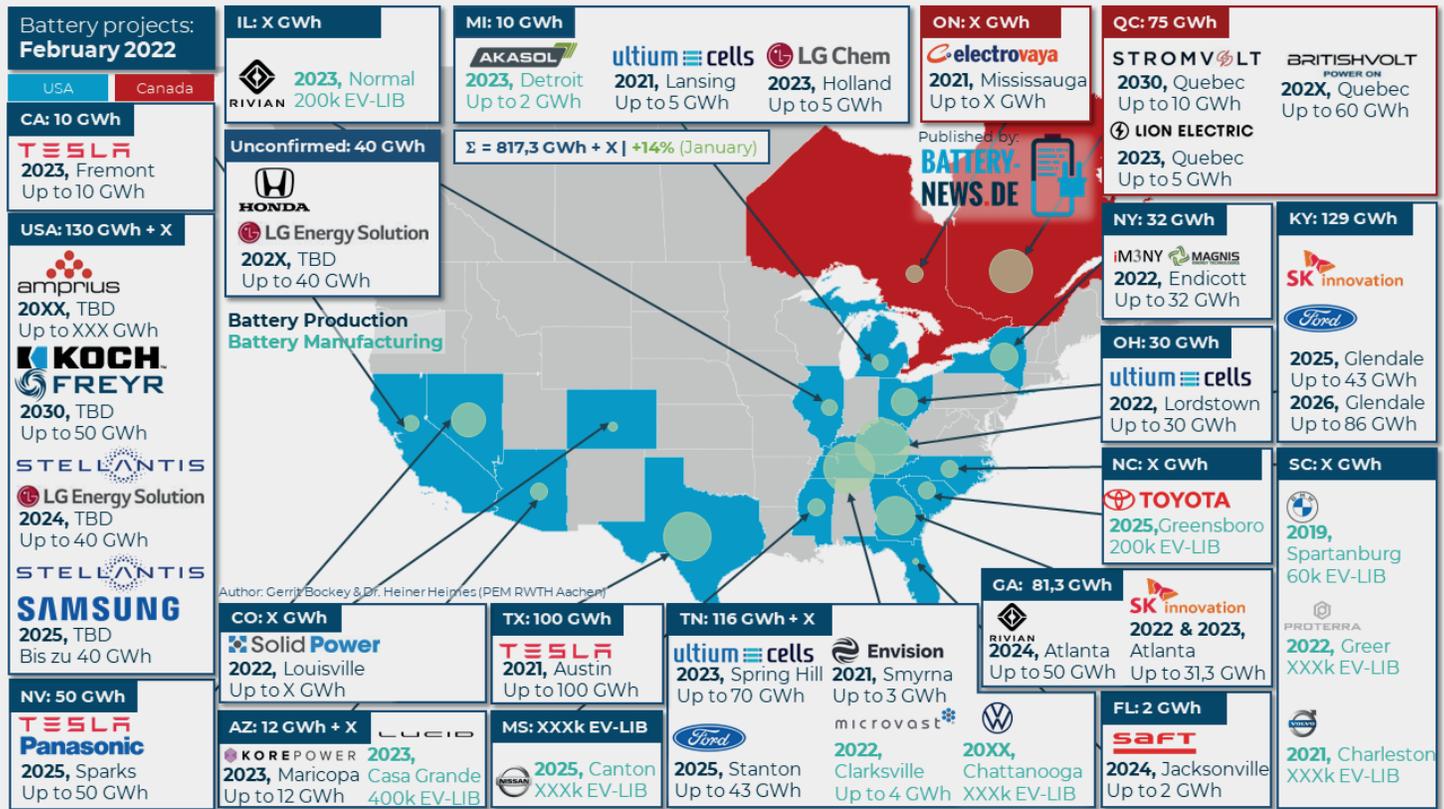
Sources: future mine capacities from companies announcements; lithium demand evolution up to 2025 by S&P Global Market Intelligence, 2030 by BloombergNEF; EV sales forecast by S&P Global Platts Analytics; lithium use by segment by iLi Markets

Developed and designed by Henrique Ribeiro, Melenie Yuen

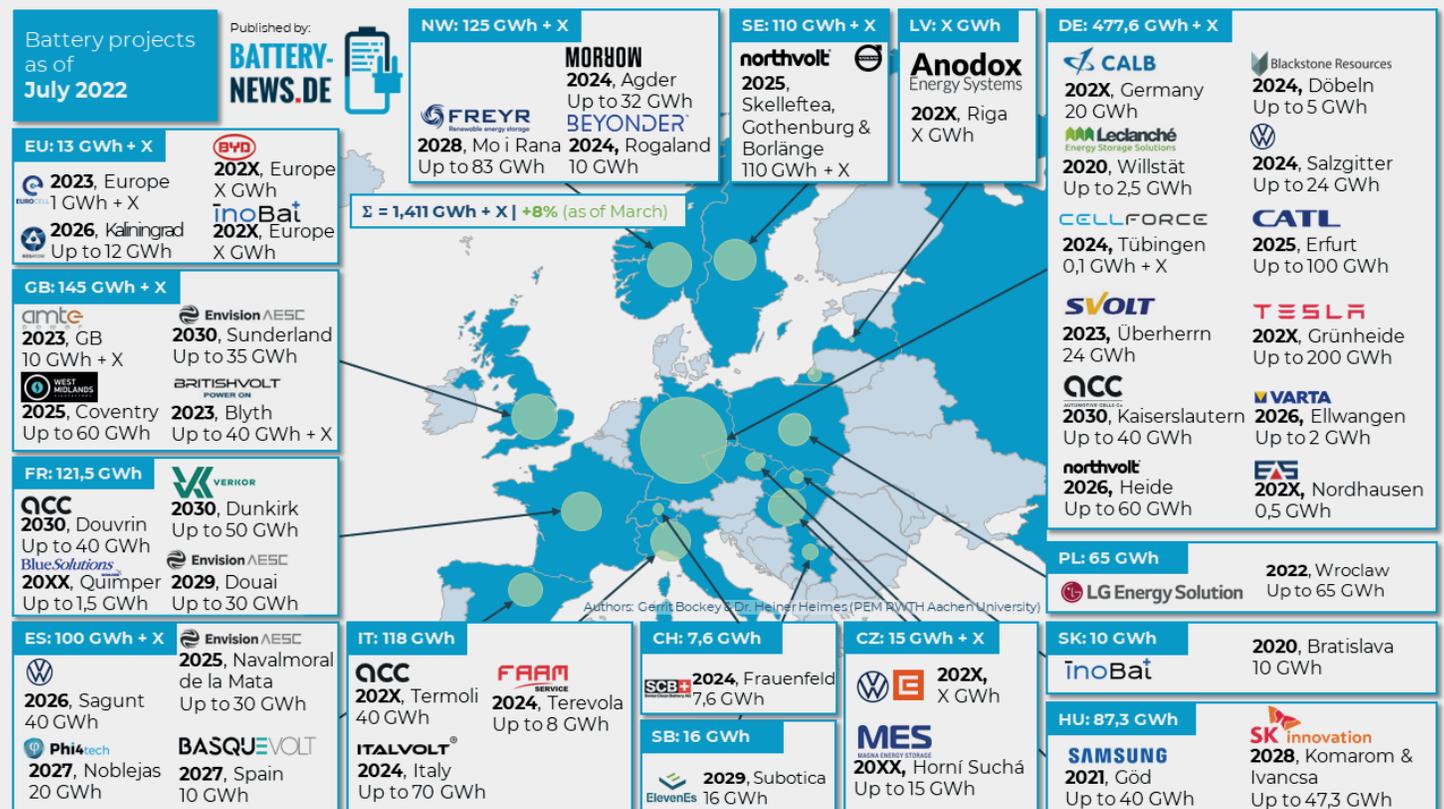
"Lithium is a key raw material for electric vehicles and energy storage systems, but the lack of investment in new supply in previous years might generate a structural deficit throughout this decade, data from the expected supply versus expected demand (both until 2030) demonstrates." (S&P Global Commodity Insights, January 2022)



Battery Production Plants in the US and Canada: Plans as of February 2022



Battery Production Plants in Europe: Plans as of July 2022



Source: Gerrit Bockey, Dr. Heiner Heimes, www.battery-news.de



MANAGEMENT & DIRECTORS

MIKE ENGLAND (CEO, Director)

Mike has been involved in the public markets since 1983, beginning his career working at the Vancouver Stock Exchange as a floor trader. Since 1995, Mike has been directly involved with public companies in various roles, including investor relations, directorships and senior officer positions. To date, Mike has been directly responsible for raising in excess of \$60 million for mineral exploration and acquisitions.

DR. RICHARD SUTCLIFFE (President, Director)

Richard has had management and directorship roles in advancing several precious and base metal projects into production, including the [Lac des Iles Palladium Mine](#) (North American Palladium Ltd.; acquired by Impala Platinum Holdings Ltd. for \$1 billion in 2019), the [Island Gold Mine](#) (Patricia Mining Corp.; acquired by Richmond Mines Inc. in 2008, subsequently acquired by Alamos Gold in 2017), [Shakespeare Nickel Mine](#) (URSA Major Minerals Inc.; acquired by Magna Mining Corp. in 2017 from Wellgreen Platinum Ltd.) and the [Sugar Zone Mine](#) (Harte Gold Corp.; now Silver Lake Resources Ltd.; ASX: SLR; current market capitalization: \$1.1 billion AUD). He has had significant involvement in mineral deposit discoveries, numerous resource and reserve estimates for gold, PGM and base metal projects, as well as preliminary economic analyses, feasibility studies, and permitting. His experience spans a wide range of geological environments from precious metals and base metals to energy, with particular expertise in gold deposits and nickel-copper-PGM deposits. He is currently a Senior Geological Advisor to P&E Mining Consultants Inc.

LINDSAY BOTTIMER (Director)

Lindsay has over 45 years of experience in international exploration and development, most recently focused on epithermal gold and porphyry copper-gold exploration in the American Cordillera and Central Asia. He has been a former officer or director of more than 20 public companies, including [Entrée Resources Ltd.](#) (TSX: ETG; current market capitalization: \$168 million) and [Richfield Ventures Corp.](#) While with Entrée, he was closely involved in the discovery and definition drilling

of both the Hugo North Extended and Heruga copper-gold porphyry systems ([Oyu Tolgoi](#), one of the world's largest new copper-gold mines) in Mongolia, and the acquisition of the [Ann Mason copper porphyry deposit](#) in Nevada. He was a founding director of Richfield Ventures which acquired and developed the [Blackwater gold deposit](#) in British Columbia prior to its sale to New Gold Inc. (TSX: NGD; current market capitalization: \$873million) in an all-share deal that valued the junior at \$550 million in 2011. In 2020, Blackwater was sold to Artemis Gold Inc. (TSX.V: ARTG; current market capitalization: \$681 million).

CHARLES DESJARDINS (Director)

Charles brings more than 30 years of public company experience in the areas of finance and public company management. He has served in varying capacities of numerous public mineral exploration and technology companies and has been very active in the Red Lake Mining District since 2006.

LEON HO (Chief Financial Officer)

Leon is a Chartered Professional Accountant working at Cross Davis & Company LLP, a chartered professional accountant firm providing accounting services to publicly listed entities, primarily in the mining sector. Leon works directly with mining chief executive officers and directors, assisting with their regulatory and accounting needs.

DAVE BISSOONDATT (Secretary)

Dave has over 35 years of experience with companies involved in the public markets. He has held the positions as Director and as Corporate Secretary in various companies traded on the TSX Venture Exchange and the Canadian Securities Exchange. He has also served on the Audit Committee in some of these companies. Dave graduated from BCIT in Control Electronics in 1975 and in Medical Radiology in 1980. Recently retired from being a manager in health care, he has also been a business owner for many years.

ADVISORY BOARD

ROBERT WEICKER

Robert is a Professional Geologist with more than 30 years of experience in all aspects of the minerals exploration and mining industry. He has worked for both

major (Asarco, Noranda, Lac Minerals) and junior mining companies, and has his own independent consulting company specialized in exploration, management and administrative roles. His experience includes development and production of the largest gold mine in Canada, development and production of an open-pit zinc operation, development of an underground gold mine, and numerous exploration projects for precious, base, and industrial metals. Robert has authored or co-authored pre-feasibility studies, feasibility studies, assessment reports, valuation studies, 43-101 reports (both domestically and internationally), technical reports, and reviews for the TSX Venture and AIM/LSE exchanges.

GARRY CLARK

Garry is the Executive Director of the Ontario Prospectors Association (OPA). He has been a Director, Vice President or President of OPA since its formation in the early 1990s. He currently serves on the Minister of Mines Mining Act Advisory Committee (Ontario) and the Ontario Geological Survey Advisory Board. He graduated with an HBS (Geology) from Lakehead University, Thunder Bay. He brings to the company extensive experience in managing large-scale exploration and development programs internationally, including Asia and North America. In addition to over 30 years of consulting experience, he held geological positions with a number of mining companies and has served as a director of other TSXV-listed companies, including his current position with Deepmarket Corp.

JAY SUJIR

Jay has been a mining and securities lawyer in Vancouver for over 30 years. He is currently a partner at the firm Farris LLP and is a director of several publicly-traded resource companies.

MIGUEL ANGEL ROMERO GONZALEZ

Miguel is a prominent lawyer within the mining industry of Mexico, a former General Director of Mines in the Ministry of Economy from 2010 to March 2013, during which period he coordinated the efforts to update the Regulations of the Mining Law and collaborated to make public the mining cartography of the country. Miguel is also an Honorary Member of the Business Mining Council of Mexico (CONMIMEX).

DISCLAIMER AND INFORMATION ON FORWARD LOOKING STATEMENTS

Rockstone Research, Zimtu Capital Corp. (“Zimtu”) and Rockland Resources Ltd. (“Rockland”) caution investors that any forward-looking information provided herein is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Rockland’s public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through their documents filed on SEDAR at www.sedar.com. All statements in this report, other than statements of historical fact should be considered forward-looking statements. Much of this report is comprised of statements of projection. **Statements in this report that are forward looking include** that Rockland, or any other company or market will perform as expected; that exploration has or will discover a mineable deposit; that soft-rock lithium “clay” mining is emerging and will play a key role in future lithium supply; that Rockland will continue to be Utah’s leading lithium-clay exploration company; that this is about to change (sediment-hosted lithium deposits are untapped resources); that the market has demonstrated with pilot plants and simple flowsheets that processing with industry-standard methods is highly economic and competitive with brine operations in South America; that sedimentary lithium mines with on-site sulfur plants promise to be energy-independent – and even net-sellers of energy – with minimal water-usage for lithium extraction; that sediment-hosted lithium deposits can achieve a smaller carbon footprint with less environmental impacts than its brine and hard-rock counterparts; that Rockland will advance the company’s Utah lithium-clay properties in a similar fashion as other companies have proven already across the border in Nevada; that Members of Rockland’s management team will be joining this year’s Zimtu Road-Trip in Switzerland (Geneva and Zurich) and Germany (Frankfurt and Munich) on November 1-5, 2022; that the geologic setting and history of volcanism and mineralization at Spor Mountain is highly prospective for lith-

ium-enriched claystone units; that initial results at Lithium Butte suggests that the Spor Mountain Formation may be more widespread than previously thought; that in 2021 [Albemarle] plans to commence exploration of clay and evaluate technology that could accelerate the viability of lithium production from clay resources in the region; that the LIBS technology will allow Rockland to quickly evaluate additional exploration and drill targets, and that Rockland looks forward to developing this program to evaluate regional lithium mineralized claystone targets in the Basin and Range Province of Utah; that Rockland is currently staking additional claims and will provide additional Property details once staking has been completed; that the LIBS analyzer provides Rockland’s geologists a much faster turnaround time to help move the project move forward fast; that Rockland is currently conducting geological mapping and soil surveys that utilize an in-house LIBS analyzer capable of lithium analysis to rapidly evaluate targets for future drilling; that Agua Fria was interpreted as having similarities to the La Ventana Zone on the Sonora Property and is characterized by fine-grained minerals, a portion which contain lithium, providing significant potential to increase plant-feed grades by beneficiation; that initial exploration activities by Rockland on the Elektra Project may include relocating the drill holes that were completed in 2017, mapping and sampling the lithium-bearing clay beds previously identified, and mapping the stratigraphy, and that upon receipt of assay results, a larger Phase-1 exploration program is planned; that Elektra represents an opportunity to fast-track exploration activities on various targets on the Elektra Project if the current situation with the Mexican Government nationalizing all of its lithium assets (April 2022) gets resolved in favor of foreign companies such as Rockland; that the Sonora Lithium Project could be worth as much as 12 trillion Mexican pesos (\$602 billion); that sedimentary lithium deposits enable a fast source to obtain lithium at competitive costs with minimal environmental impact; that carbon emission intensity per ton of LCE is projected to be competitive to South American brine operations and substantially lower than US and Australian hardrock operations; that magnesium, potassium and rare earth oxides (scandium,

dysprosium and neodymium) are potentially recovered from a lithium-enriched leach solution during processing; that now, there is necessity for lithium-clay deposits to be put into production in the US; that several projects in Nevada and Oregon are up and coming, and seen as the only viable option for the US to become independent from lithium imports; that there is uncertainty in the Mexican exploration and mining industry, which will likely delay the creation of a profitable lithium industry in Mexico, and that this uncertainty may prevent Mexico from becoming an important lithium producer at a time when the world is scrambling for new supplies amid rising demand for electric vehicle; that in the US, sedimentary lithium projects are being fast-tracked to production; that Loneer’s Rhyolite Ridge is anticipated to come onstream in 2025, and expected to be the lowest cost lithium producer; that the operation of the pilot plant will provide essential data for a planned Feasibility Study and enable Cypress to produce marketing samples to support negotiations with potential off-take and strategic partners; that sedimentary deposit lithium projects are young, but I believe that some of them will be built in the 2020s. **Such statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in these forward-looking statements. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Risks and uncertainties include:** The receipt of all necessary approvals for exploration and mining; the ability to find sufficient mineralization to mine; uncertainty of future production, uncertain capital expenditures and other costs; financing and additional capital requirements for exploration, development and construction of a mine may not be available at reasonable cost or at all; mineral grades and quantities on the projects may not be as high as expected; samples found to date and historical drilling may not be indicative of any further potential on the properties; that mineralization encountered with sampling and drilling will be uneconomic; that the targeted prospects can not be reached; the receipt in a timely fashion of further



permitting; legislative, political, social or economic developments in the jurisdictions in which Rockland carries on business may hinder progress; there may be no agreement with neighbors, partners or government on developing infrastructure; operating or technical difficulties or cost increases in connection with exploration and mining or development activities; the ability to keep key employees and operations financed; what appear at first to be similarities with operating mines and projects may not be substantially similar; share prices of these companies may fall as a result of many factors, including those listed here and others listed in the companies' and other mining exploration company disclosure; and the resource prices available when the resource is mined may not be sufficient to mine economically. **Accordingly, readers should not place undue reliance on forward-looking information.** Rockstone and the author of this report do not undertake any obligation to update any statements made in this report except as required by law. Note that lithium values and mineralization described in similar rocks on other properties are not representative of the mineralization on Rockland's properties, and historical work and activities on its properties have not been verified and should not be relied upon.

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