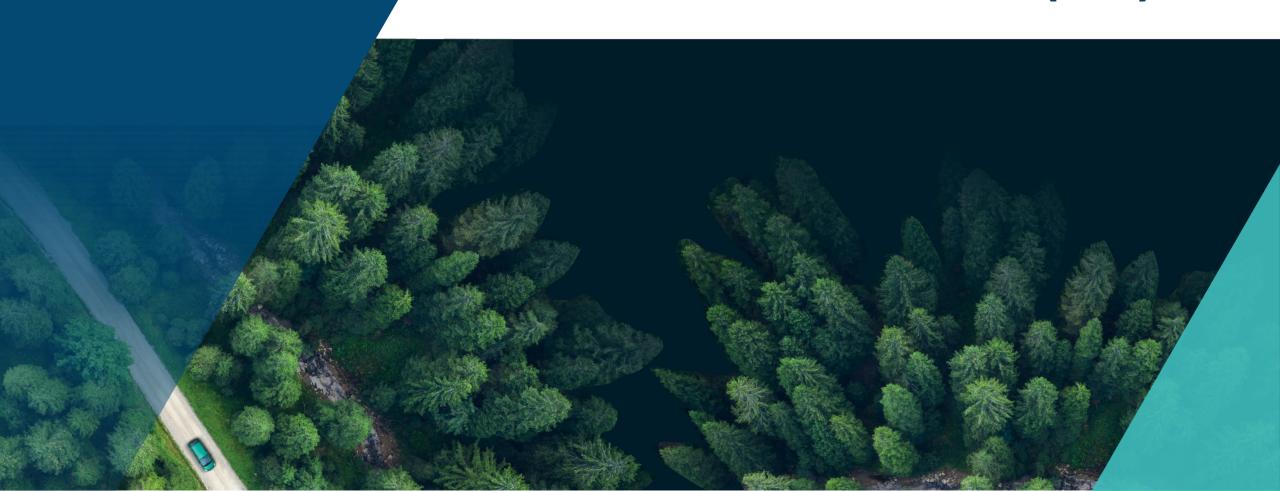
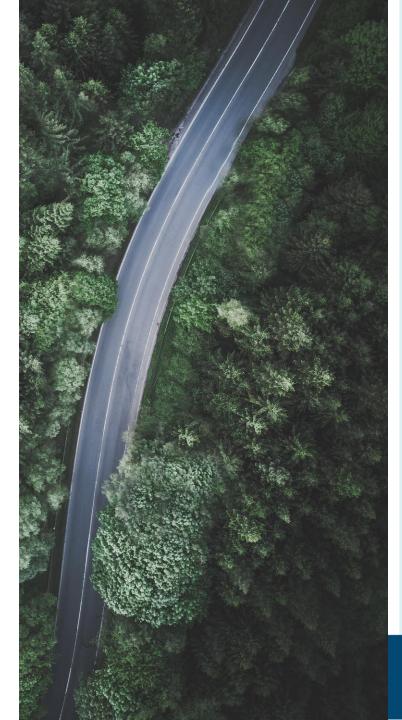


# A GROWING WAVE OF SUSTAINABLE LITHIUM SUPPLY: ADSORPTION-TYPE DIRECT LITHIUM EXTRACTION (DLE)



# ADSORPTION-TYPE DIRECT LITHIUM EXTRACTION (A-DLE)

- Advantages of adsorption-type DLE (A-DLE)
- Commercial growth of lithium adsorption
- How the process works
- Differences to legacy lithium production methods
- Differences to novel, non-commercial DLE methods
- VULSORB®: Vulcan's proprietary sorbent
- Summary of Vulcan's activities to de-risk A-DLE on Upper Rhine Valley Brine Field (URVBF) brine
- Vulcan's LEOP and LEP plants: optimisation and full commercial
- A-DLE: potential to significantly lower lithium's footprint
- FAQs



# ADVANTAGES OF ADSORPTION-TYPE DIRECT LITHIUM EXTRACTION (A-DLE)

### Track record

✓ Global, multi-decade commercial precedent in the lithium industry

# Low operating cost

- ✓ Water is used to recover the lithium from the sorbent no acid requirement means lower operating cost and less waste
- ✓ Requires heat to work, so lowers operating cost and saves energy when applied to naturally heated sub-surface brines

# Reduces environmental impact

- ✓ Highly selective for Li with >90% extraction efficiency, reduces or removes the need for legacy-method large scale evaporation ponds
- ✓ Salinity/heat and water driven process, reduces/removes the need for large quantities of chemical reagents used in legacy lithium production methods

# **Product quality**

✓ Produces very pure product relative to hard rock and evaporative lithium, an advantage in the battery electric vehicle industry, which has very high product quality standards



# COMMERCIAL GROWTH OF ADSORPTION-TYPE DLE<sup>1</sup>

Livent) in Argentina: 1996

LCE A WAVE OF SUSTAINABLE LITHIUM SUPPLY IS BUILDING t/p.a. Vulcan (EU) targeting phased ramp up of 500,000 **Zero Carbon Lithium™ Project New DLE** entrants ZERO CARBON LITHIUM™ from 0&G and mining industries Multiple new commercial projects built in late 2010s in Qinghai province, China **SID** 250,000 Driving the innovation **SUNRESIN** ExonMobil Invention of aluminate-based adsorbent for Direct Lithium 100,000 ▲ ALBEMARLE **Extraction by Dow (now Dupont): 1970s** 2020 2030 1970s 1990s 2010 KOCH INDUSTRIES INC eramet Livent RioTinto Start of commercial use of Livent starts to build increased **Koch Industries/ Compass Minerals Eramet and Rio Tinto are in** adsorption-type DLE by FMC (now construction and will start to shortly start producing in the US DLE capacity, announces 2

<sup>1</sup>This graph is intended to illustrate the increasing commercial usage of DLE worldwide. The data is taken from the public sources referenced in slide 18 and no warranty is given for the correctness of the data. The future data is subject to change at any time due to external factors and should be read, mutatis mutandis, with the forward-looking statements disclaimer.

producing from DLE shortly

further phases

# A WAVE OF SUSTAINABLE LITHIUM SUPPLY IS BUILDING...

# THE "NEW NORMAL"

# A-DLE used commercially to produce lithium since 1996, rapidly increasing production

- ✓ **Livent**, formerly FMC, and a global Top 3 lithium producer, has used A-DLE in its commercial lithium operations in Argentina for >25 years. Now increasing production by over 400%.¹
- ✓ Growth of five new Chinese producers in late 2010s, when lithium market started to grow linked to EVs: Lanke Lithium, Zangge Mining, Jintai Lithium, Minmetals Salt Lake, Jwell New Materials.

# New players entering the market in '24-'26, including from the mining industry

- French company **Eramet** (market capitalisation ~ EUR 2.5 billion) is building an adsorption-type DLE project in Argentina for a 24,000 tpa LCE capacity, using a proprietary alumina-based adsorbent. The first tonnes of production are slated for 2024.<sup>2</sup>
- ✓ In Europe, dual Australian and Frankfurt-listed **Vulcan Energy** (market capitalisation ~ A\$800m) has been developing its Zero Carbon Lithium™ Project since 2018 and is now ready to move into the execution phase, using its own, proprietary alumina-based adsorbent. Targeting start of production by end of 2025, and ramping up production during 2026, with 24,000 tpa LCE capacity for Phase One.<sup>3</sup>
- ✓ US company **Compass Minerals** (market cap ~ US\$1.6 billion) in construction for first commercial adsorbent-type DLE plant in Utah, targeting start of production in 2025, using Energysource Minerals' adsorbent, backed by Koch Industries.<sup>4</sup>
- ✓ Australian company **Rio Tinto** (market capitalisation ~ A\$167 billion) moving into the construction phase of a lithium adsorption project in Argentina, Rincon, using a proprietary adsorbent, having conducted pilot testwork since acquiring the project in 2022 for US\$825m.<sup>5</sup>
- ✓ **SQM** announced that it plans to spend \$1.5 billion on desalination and DLE to improve lithium production in Chile. The project would help increase lithium production capacity by more than 60% from 2021 levels, the company says.<sup>6</sup>
- Exxon mobile: announced drilling first well Work has begun for the company's first phase of North America lithium production in southwest Arkansas, an area known to hold significant lithium deposits.<sup>7</sup>
- ✓ **Albemarle** has also announced that it is entering the DLE space, starting in Arkansas from existing bromine operations.<sup>8</sup>

Inttps://livent.com/wp-content/uploads/2023/07/Livent\_2022\_SustainabilityReport\_English.pdf] Market capitalization is calculated as ~4.1B US\$ at 09/08/2023 Inttps://www.eramet.com/en/eramine-world-class-lithium-production-project] Market capitalization is calculated as ~2.2B € at 09/08/2023

<sup>3</sup>/ https://www.investi.com.au/api/announcements/vul/e617fca6-644.pdf] Market capitalization is calculated as ~660m A\$ at 09/08/2023

"[https://www.compassminerals.com/what-we-do/lithium] Market capitalization is calculated as ~ 1.59B US\$ at 09/08/2023

Intros://www.riotinto.com/news/releases/2022/Rio-Tinto-completes-acquisition-of-Rincon-lithium-project] Market capitalization is calculated as ~162.36B A\$ at 09/08/2023

¶https://cen.acs.org/energy/energy-storage-/Lithium-firms-hope-direct-extraction/100/web/2022/12] Market capitalization is calculated as ~ 18.9B US\$\$ at 09/08/2023

https://corporate.exxonmobil.com/news/news-releases/2023/1113\_exxonmobil-drilling-first-lithium-well-in-arkansas

















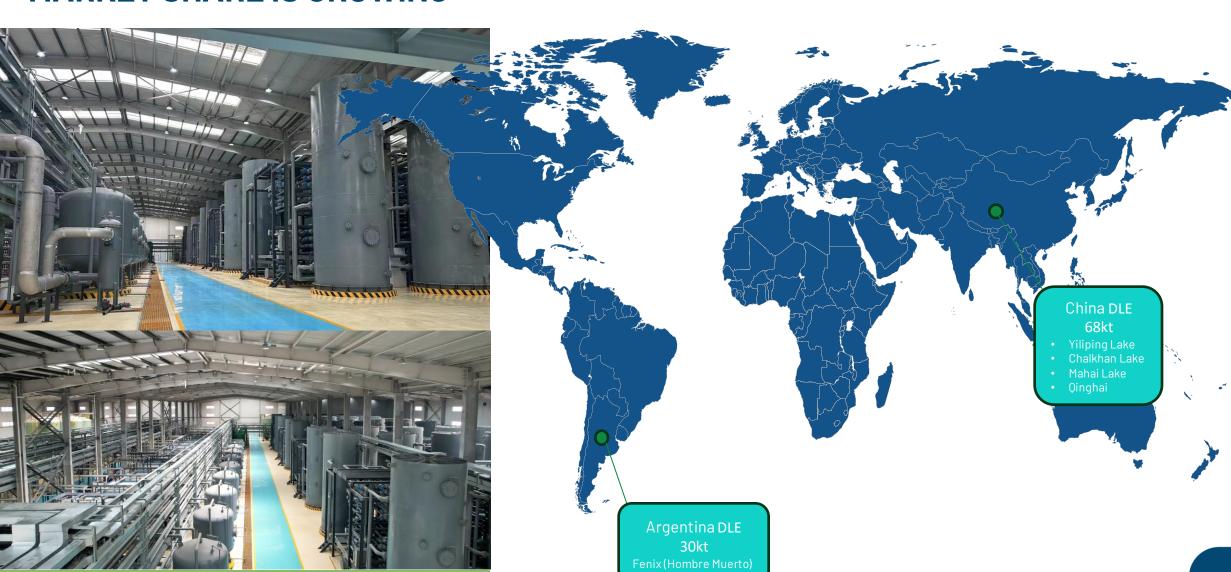




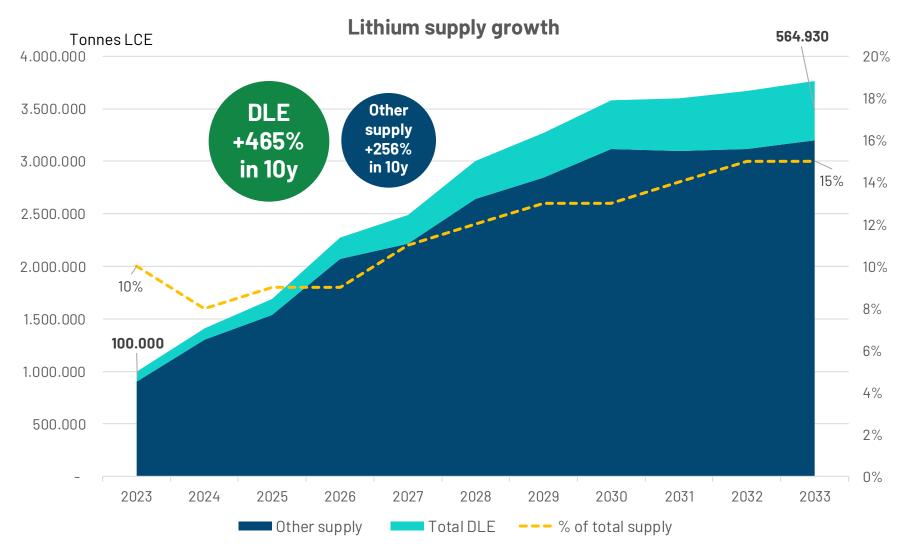


# 10% OF GLOBAL LITHIUM PRODUCTION COMES FROM DLE, AND ITS MARKET SHARE IS GROWING

Images: Evebattery 10,000 tpa battery grade LCE commercial plant built with Sunresin



# **COMMERCIAL GROWTH OF DLE**



**Goldman Sachs:** "The implementation of Direct Lithium Extraction (DLE) technologies has the potential to significantly increase the supply of lithium from brine projects (much like shale did for oil), nearly doubling lithium production on higher recoveries and improving project returns, though with the added bonus of offering ESG/sustainability benefits, while also widening rather than steepening the lithium cost curve... We prefer briners to miners" 1

### McKinsey & Co:

"The world needs abundant, low-cost lithium to have an energy transition, and DLE has the potential to meet that goal"<sup>2</sup>





Fastmarkets is one of the most trusted cross-commodity price reporting agency (PRA) in the agriculture, forest products, metals and mining, and new generation energy markets.

# **EXAMPLES OF COMMERCIAL A-DLE PLANTS**







CHINA - EVEBATTERY 10,000 TPA LCE COMMERCIAL PLANT BUILT WITH SUNRESIN







CHINA - ZANGGE MINERAL 10,000 TPA LCE

# ...NOW WITH THE OIL AND GAS INDUSTRY BEHIND IT

# The next wave: Big Oil into Big Lithium?

- ✓ Adsorption-type DLE has synergies with and similarities to integrated oil and gas projects, including piping networks, "upstream" and "downstream" integration. Notable trend of oil and gas majors starting to invest in the space.
- ✓ **Exxon Mobil Corp** (MC: US\$ 431 billion), has acquired an adsorption-type DLE project in the Smackover Formation of Arkansas.¹
- ✓ Koch Industries (private, revenue US\$115 billion), invested US\$252m into adsorption-type DLE with Compass Minerals International (CMP.N) in Utah starting in 2025 (offtake w/ Ford).²
- ✓ Occidental Petroleum Corp (market capitalisation US\$57 billion) has also entered the space, having acquired adsorption-type DLE technology.<sup>3</sup>
- ✓ **SLB**, formerly **Schlumberger**, (market capitalisation US\$82 billion), is expanding into adsorption-type DLE in Nevada. "The fact that you can have a completely domestic brine resource that is now economic is an enormous driver for DLE."<sup>4</sup>
- ✓ Chevron Corp (market capitalisation US\$295 billion) has also just announced it is exploring opportunities to enter the space, noting that "extracting lithium fits with the "core capabilities" of a company like Chevron that has deep experience producing oil and gas."









<sup>[</sup>https://www.energyintel.com/00000189-9db8-d6e5-adab-9dbc9caa0000] Market capitalization is calculated as ~431B US\$ at 09/08/2023

<sup>[</sup>https://www.mining-technology.com/news/compass-koch-lithium/]private, revenue 2022 115B US\$ at 09/08/2023

Inttps://www.ft.com/content/7616a9f4-e0db-4d61-b189-9e81ddd8137b]Market capitalization is calculated as ~56.4B US\$ at 09/08/2023

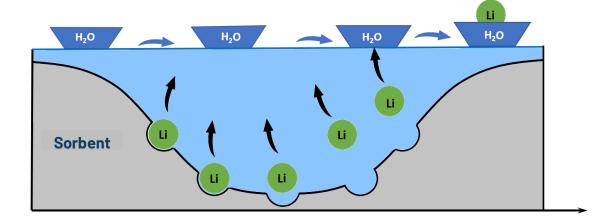
<sup>4[</sup>https://www.slb.com/news-and-insights/newsroom/press-release/2021/pr-2021-0318-sne-lithium-extraction-plant-nevada] Market capitalization is calculated as ~83.2B US\$ at 09/08/2023 [https://www.mining.com/web/chevron-considers-lithium-production-in-latest-ev-bet-by-big-oil/] Market capitalization is calculated as ~305.5B US\$ at 09/08/2023

# HOW THE ADSORPTION-TYPE DIRECT LITHIUM EXTRACTION PROCESS WORKS

# Step 1 | Na | K | Mg | Ca | | H<sub>2</sub>O |

- Brine has a high salinity it contains ions of various sizes and electric charges.
- Water molecules surrounding the ions make up a hydration shell.
- Small lithium ions require a double hydration shell to stabilise their electric charge in the solution.
- In brines with high salinity this is not possible due to the competition for water molecules with the other ions.
- Thus, lithium chloride adsorbs to the surface of the sorbent material.
- During loading, lithium chloride is adsorbed on the sorbent while all the other ions stay in the brine.

## Step 2



- When the loaded sorbent is washed with water, an excess of free water molecules becomes available to the lithium ions.
- Formation of a double hydration shell is an energetically favoured process, which drives the desorption of the lithium chloride from the surface of the sorbent material.
- This process is called elution and the collected wash water that contains the lithium chloride is called the eluate.
- Eluate has a high concentration of lithium chloride and low concentration of impurities, enabling conversion to lithium hydroxide.

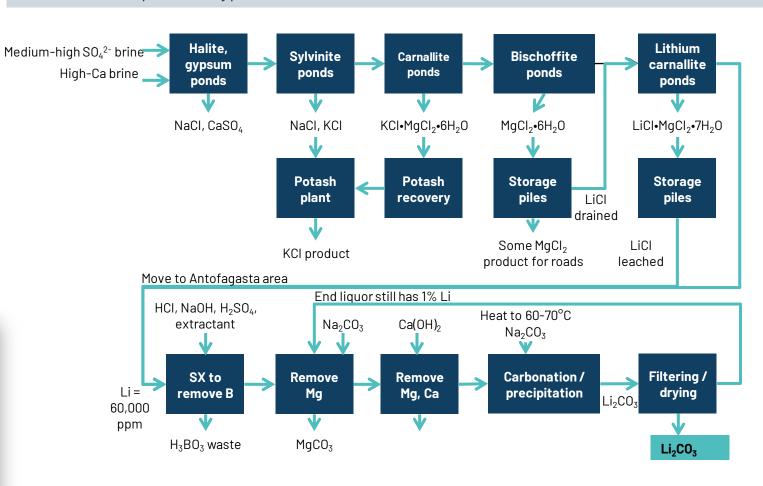
# **DIFFERENCES WITH LEGACY LITHIUM BRINE PRODUCTION METHODS**

# Legacy method:

- Use of evaporation ponds, high water consumption and lengthy (18 month) process vulnerable to climate/weather disruption
- Low lithium recovery, extent depends on Mg/Li ratio
- Complex process, multiple precipitation steps
- Significant chemical reagent consumption, and therefore large CO<sub>2</sub> footprint

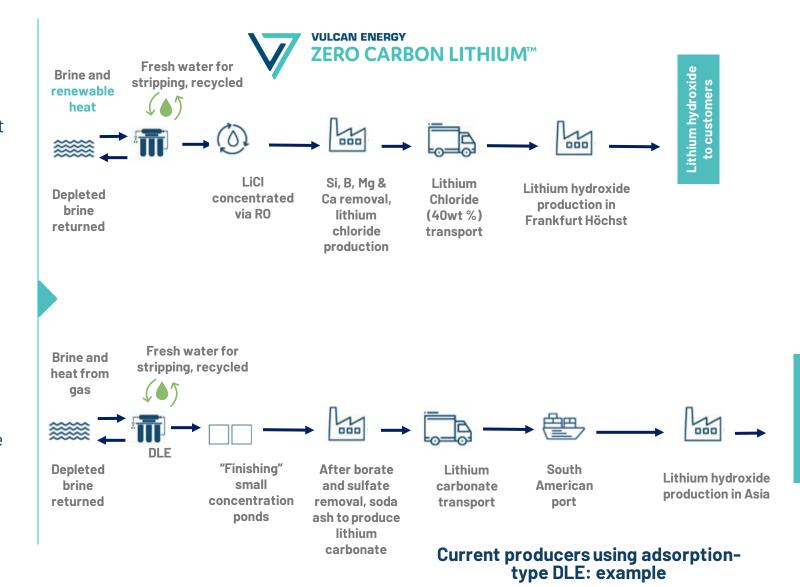


# Generalised evaporation type flow sheet



# **DECARBONISING DLE: COMPARISON WITH CURRENT DLE PRODUCTION**

- Adsorption-type DLE needs heated brine to work.
- Current DLE producers use gas to heat the brine. Vulcan uses geothermal brine that is already naturally heated. Excess heat is used to generate renewable energy.
- Vulcan uses process equipment to concentrate lithium, instead of concentration ponds. This speeds up production time and reduces water usage. Incumbent producers are also switching to process equipment concentration.
- Vulcan's proximity to lithium hydroxide conversion also reduces carbon footprint, relative to current producers.



# V

# DIFFERENCES BETWEEN ADSORPTION-TYPE DLE AND NOVEL, NON-COMMERCIAL DLE METHODS

	DLE method	Material	Main advantages	Main disadvantages
	IN COMMERC	CIAL USE FOR >25 Y	EARS, EXPONENTIAL GROWTH IN PR	ODUCTION
	Adsorption-type Direct Lithium Extraction	LiCI-2AI(0H) <sub>3</sub> , nH20 Many form factors	<ul> <li>Water is used to recover the lithium from the sorbent - no chemical reagents required</li> <li>Global and multi-decade commercial precedent</li> <li>No acid requirement means long sorbent life</li> <li>Highly selective for Li with &gt;90% extraction efficiency</li> <li>Works well with heated brines</li> </ul>	<ul> <li>Usually requires temperatures &gt; 50°C (not a disadvantage if brine is already hot)</li> <li>Lower eluate LiCl concentration than IX, requires more reverse osmosis to separate and recycle water</li> </ul>
	STILL IN DEVI	ELOPMENT/R&D PHAS	E	Needs large amounts of base and acid to work, increases OPEX and waste formation
	Ion Exchange	LiFeP0 <sub>4</sub>	<ul> <li>High capacity and therefore high concentration of Li in the eluate.</li> </ul>	<ul> <li>Some IX material are attacked during desorption.</li> <li>Degrade in acidic conditions</li> </ul>
Z	Solvent Extraction	Li <sub>2</sub> TiO <sub>3</sub> Organic solvents	<ul> <li>High concentrations of lithium can be achieved in the extraction solution. Continuous.</li> </ul>	<ul> <li>Organic solvents are challenging environmentally</li> <li>Fire risk with high temperature brines</li> <li>Expensive relative to other technologies, potentially larger CAPEX for first fill</li> </ul>

MOFs, IX or LiCl-2Al(OH)<sub>3</sub> • No contact between brine and extractant, fewer

impurities and continuous

Membranes

in polymers

In their technological infancy, fouling, lack of stability

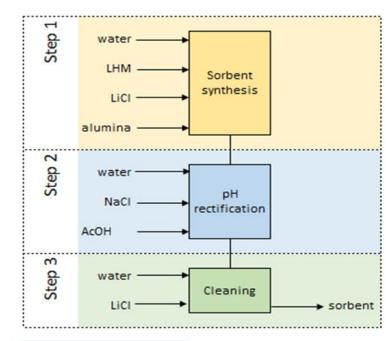
in geothermal brines. Needs pretreatment

# **VULSORB® - VULCAN'S PROPRIETARY SORBENT FOR A-DLE OPERATION**

# **VULSORB®**

# In-house A-DLE intellectual property

- In the past, Vulcan had tested a series of commercially available sorbents
- Based on test results achieved, we decided to use a sorbent with lithium aluminate intercalate structure for our A-DLE process
- Vulcan has developed its own proprietary sorbent, VULSORB®, which is synthesized via a scalable 3-step process
- **VULSORB®** belongs to a lithium extraction adsorbent family that has been used by different companies in multiple production assets over the past 25 years
- Based on Vulcan's test work on Upper Rhine Valley Geothermal Brine,
   VULSORB® offers higher lithium extraction capacity than other sorbents
- VULSORB® can be used with other brines, both in Europe and globally
- In addition, we have built up extensive application and analytical know-how for the use of VULSORB® in the A-DLE process





# SUMMARY OF VULCAN'S ACTIVITIES TO DE-RISK A-DLE ON UPPER RHINE VALLEY BRINE FIELD (URVBF) BRINE

Standard approach for applying known metals extraction process to a mineral resource



Technology selected



Applicability to geochemistry confirmed in laboratory



Engineering parameters determined and optimised using pilot-scale processing test work. Feasibility study.



Commercial plant build and operation

- ✓ Technology selected in scoping work 2018-2020
- √ 3 years of in-house laboratory testwork successfully completed '21-'23
- ✓ Technology de-risked on our brine chemistry (i.e., salinity, Li content, chemical composition, temperature), at multiple well sites
- ✓ Pilot plant operational since '21. Lithium hydroxide "better than battery grade" already produced.
- √ 1000s of cycles, and 2.5 years of stable successful operation
- ✓ Data from pilot plants used to optimise and complete engineering design for Definitive Feasibility Study and Bridging Phase

Ready to move into execution, build and operation of commercial plant





# **NEW LITHIUM EXTRACTION PLANT (LEP)**

- In-house designed Lithium Extraction Optimisation Plant (LEOP)
  near completion, planned to start operation second half of 2023 to
  train staff in pre-commercial environment prior to start of
  commercial production for targeted operational readiness in late
  2025
- Optimisation plant also built to start sending significant volume of product to offtakers for pre-qualifications
- Once operational, this plant intends to produce the first tonnes of domestically produced lithium chemicals (LiCl solution) in Europe

# Phase One commercial: adsorption-type LEP

- To be constructed next to new Phase One geothermal plant
- Total targeted capacity to be 24,000tpa LHM equivalent in LiCl form
- From the LEP, LiCl concentrate solution will be transported to the CLP
- Modular build allows for further phased development across other phases in URVBF
- Targeting Phase One SOP in late '25, ramping up during '26



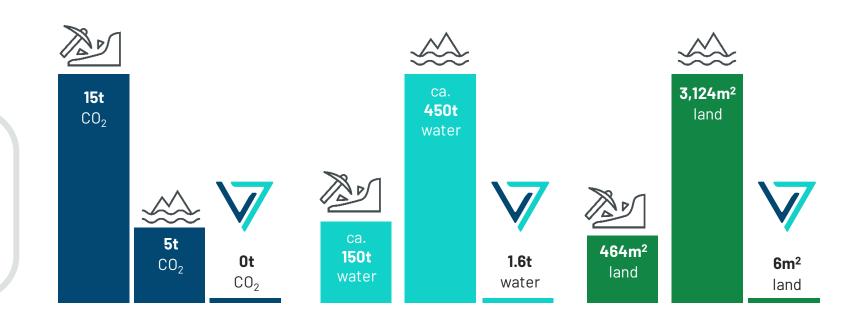


Top: construction of Lithium Extraction Optimisation Plant (LEOP)
Bottom: Planned new commercial Phase One geothermal and LEP development.

# A-DLE: POTENTIAL TO SIGNIFICANTLY LOWER LITHIUM'S FOOTPRINT

Engineered to have industry-leading environmental performance

A-DLE can draw on naturally occurring, renewable geothermal energy to power the lithium extraction process and create a renewable energy by-product. This uses **no fossil fuels** in the process, requires **very little water** and has a **tiny land footprint**.



# PER TONNE OF LHM PRODUCED

- 1. Industry peer data generated from Minviro Life Cycle Assessment (see Vulcan ASX announcement, 4 August 2021)
- 2. Vulcan Energy's DFS, 13 February 2023
- The Company's environmental credentials set out in this slide (and elsewhere in this Presentation) are based on the Company's Studies. There is no guarantee that the Company will be able to achieve the targeted metrics.



## Hard rock mining

~ 60% of world lithium production



### **Evaporation ponds**

40% of world lithium production



# **FAQS**

# Q: "I have read that DLE is not commercially proven, why is this?"

A: This is a common misunderstanding, as "DLE" is an umbrella term, which refers to more than one kind of technology. DLE using an aluminate-type adsorbent, like Vulcan is doing, is proven, has been used commercially for decades in the lithium industry, and can be used on most brines where salinity and heat is present. Now that the lithium industry is growing and sustainability is becoming a much bigger issue, its use is increasing very quickly.

It is the novel DLE methods that are being tested by academic researchers and start-ups that are not commercially proven, such as titanium/manganese-based ion exchange materials, and membranes. Stakeholders beware: not all "DLE" is the same.

# Q: "Why are there research projects into DLE, if it is already proven?"

A: There have been a spate of government-funded research projects worldwide into novel, unproven types of "DLE". The industry should support R&D into new lithium extraction technologies where the brines are not amenable to adsorption-type DLE (A-DLE). However, where brine conditions are amenable to A-DLE, there is no pressing need for further research into novel technologies.

# Q: "I have heard that adsorption-type DLE is water-intensive. Is it environmentally friendly?"

A: A strength of A-DLE is that it uses very little chemical reagents, and the main inputs are heat, brine and water. The sorbent needs to be "washed" with water to desorb the lithium from the sorbent. If simple recycles are built into the process design, this water can be reused again and again, resulting in a tiny water footprint. So yes, if done right, A-DLE is a low water use as well as low carbon way of producing lithium for electric vehicles.

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Technical information. Vulcan has carried out a definitive feasibility study for Phase One of its Zero Carbon Lithium™ Project ('Project'), the results of which were announced to the ASX in the announcement "Zero Carbon Lithium Project Phase 1 DFS Results" dated 13 February 2023 ('DFS'), ('DFS Announcement'). This announcement may include certain information relating to the DFS. The DFS is based on the material assumptions outlined in the DFS Announcement (see "Competent Person Statement" below). While Vulcan considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct of that the range of outcomes indicated by the DFS will be achieved. This announcement may also include certain information relating to Phase 2 of its Project, Vulcan has not yet carried out a definitive feasibility study for Phase Two of its Project

**Funding Strategy.** To achieve the range of outcomes indicated in the DFS, additional funding will be required. Investors should note that there is no certainty that Vulcan will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Vulcan's existing shares. It is also possible that Vulcan could pursue other financing strategies such as a partial sale or joint venture of the Project. If it does, this could materially reduce Vulcan's proportionate ownership of the Project.

 $\textbf{Competent Person Statement.} \ \textbf{Please see Appendix 2} \ for the \ \textbf{Competent Person Statement.}$ 

<sup>&</sup>lt;sup>1.</sup> This slide contains a summary of the applicable disclaimers, please see Appendix 2 for the full disclaimers in relation to this Presentation.





# **APPENDIX 1: DLE PRODUCTION/PLANNED PRODUCTION DATA**

Location	Source	DLE data
China	https://www.seplite.com/company.html https://www.seetao.com/details/159795.html https://www.seplite.com/sunresin-s-4000t-a-jintai-salt-lake-lithium-extraction-project-put-into-operation.html	Lanke Lithium 20 kt/p.a. 2017 Minmetals Slat 30 kt/p.a. 2022 Zangge Lithium 20 kt/p.a. 2018 Jewll New Materials 10kt/p.a. 2022 Jintai Lithium 7 kt/p.a. 2019 Guoneng Mining 3 kt/p.a. 2017
Argentina	https://livent.com/wp-content/uploads/2023/07/Livent_2022_SustainabilityReport_English.pdf https://livent.com/wp-content/uploads/2023/06/2023-Livent-Resource-and-Reserve-Report-Salar-del-Hombre-Muerto.pdf https://www.goldmansachs.com/intelligence/pages/gs-research/direct-lithium-extraction/report.pdf https://www.riotinto.com/news/releases/2022/Rio-Tinto-completes-acquisition-of-Rincon-lithium-project	Livent: P1 additional 20 kt/p.a. 2024 P2 additional 30kt/p.a. 2026 P3 additional 30kt/p.a. 2029/30  Eramet 24 kt/p.a. 2024 RioTinto 30 kt/p.a. 2025
USA	https://www.goldmansachs.com/intelligence/pages/gs-research/direct-lithium-extraction/report.pdf https://www.compassminerals.com/what-we-do/lithium	CompassMinerals ramp up 2025-2026 to 35kt/p.a. P1 11kt/p.a. P1 28kt/p.a. LHM
EU	https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf	Vulcan Enegry Ltd. P124kt/p.a. 2026 P2 additional 24kt/p.a. 2028

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# **APPENDIX 2: FULL DISCLAIMER CONT.**

Ore Reserves and Mineral Resources Reporting. It is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the Joint Ore Reserves Committee's Australiasian Code for Reporting of Mineral Resources and Ore Reserves ("JORC Code"). Investors outside Australia should note that while ore reserve and mineral resource estimates of the Company in this document comply with the JORC Code (such JORC Code (such JORC Code-compliant ore reserves and mineral resources being "Ore Reserves" and "Mineral Resources" respectively), they may not comply with the relevant guidelines in other countries and, in particular, do not comply with (i) National Instrument 43-101 (Standards of Disclosure for Mineral Projects) of the Canadian Securities Administrators (the "Canadian NI 43-101 Standards"); or (ii) subpart 1300 of Regulation S-K under the US Securities Act of 1933, as amended (the "Securities Act"), which governs disclosures of mineral reserves in registration statements filed with the US Securities and Exchange Commission ("SEC"). Information contained in this Presentation describing mineral deposits may not be comparable to similar information made public by companies subject to the reporting and disclosure requirements of Canadian or US securities laws. On 31 October 2018, the SEC adopted amendments to its disclosure rules to modernise the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the US Exchange Act of 1934, as amended (the "Exchange Act"). These amendments became effective 25 February 2019, with compliance required for the first fiscal year beginning on or after 1 January 2021. Under these amendments, the historical property disclosure requirements for mining registrants included in Industry Guide 7 under the Securities Act were rescinded and replaced with disclosure requirements in subpart 1300 of Regulation S-K. As a result of the adoption of subpart 1300 of Regulation S-K, the SEC's standards for

Financial data. All monetary values expressed as "\$" or "A\$" in this Presentation are in Australian dollars, unless stated otherwise. All monetary values expressed as "US\$" in this Presentation are in Euros, unless stated otherwise. The assumed exchange rate to convert Euros into Australian dollars or US dollars (as applicable) is shown in the footnote to each respective slide. In addition, prospective investors should be aware that financial data in this Presentation includes "non-IFRS financial information" under ASIC Regulatory Guide 230 'Disclosing non-IFRS financial information' published by ASIC and also 'non-GAAP financial measures' within the meaning of Regulation G under the U.S. Securities Exchange Act of 1934. The non-IFRS financial measures do not have standardised meanings prescribed by Australian Accounting Standards and, therefore, may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards. Although Vulcan believes the non-IFRS financial measures). Similarly, non-GAAP financial measures do not have a standardised meaning prescribed by Australian Accounting Standards or International information (or non-IFRS financial information (or non-IFRS financial measures). Similarly, non-GAAP financial measures do not have a standardised meaning prescribed by Australian Accounting Standards or International Financial Reporting Standards and therefore may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards. Although Vulcan believes that these non-GAAP financial measures provide useful information to readers of this Presentation, readers are cautioned not to place undue reliance on any such measures.

Technical information. Vulcan has carried out a definitive feasibility study for Phase One of its Zero Carbon Lithium™ Project ('Project'), the results of which were announced to the ASX in the announcement "Zero Carbon Lithium Project Phase 1 DFS Results" dated 13 February 2023 ('DFS'), ('DFS Announcement'). This announcement may include certain information relating to the DFS. The DFS is based on the material assumptions outlined in the DFS Announcement (see "Competent Person Statement" below). While Vulcan considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct of that the range of outcomes indicated by the DFS will be achieved. This announcement may also include certain information relating to Phase 2 of its Project, Vulcan has not yet carried out a definitive feasibility study for Phase Two of its Project.

Funding Strategy. To achieve the range of outcomes indicated in the DFS, additional funding will be required. Investors should note that there is no certainty that Vulcan will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Vulcan's existing shares. It is also possible that Vulcan could pursue other financing strategies such as a partial sale or joint venture of the Project. If it does, this could materially reduce Vulcan's proportionate ownership of the Project.

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# Thank you

**Questions?** 

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