

# New Energy Challenges: Exploring for Lithium

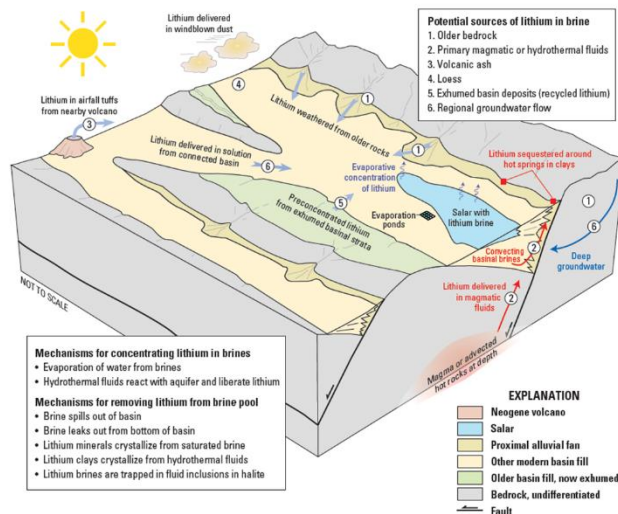
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## Summary

While many people think of lithium only in the context of batteries, it is a critical material supporting development of diverse new technologies in the 21<sup>st</sup> century. Global supply chains of years past must be rapidly expanded to meet new demands. Traditionally, lithium has been produced from both hard-rock mines and from highly saline brines brought to the surface and concentrated through evaporation. New mines can be developed, but surface concentration of lithium brines is limited to specific areas and is coming under increased environmental scrutiny. To address the demand, exploration companies have identified brines in saline aquifers as huge potential new lithium resources, but there are challenges to finding, appraising and developing them. This talk will shed light on the current challenges and highlight new ideas for future development.

## Method

This talk will give an overview of the properties of Lithium as well as some of the market forces guiding exploration prices and demand. The talk will then delve into the aspects of lithium exploration that need to be addressed such as best locations to explore, concentrations of lithium, source and total resource considerations. The geoscience techniques that are used for exploration will also be highlighted such as water analysis, stratigraphic and structural considerations as well as geophysical methods applied to the projects. This will be capped off by a number of present day exploration case studies and their specific approaches to date.



## Results

The results of the talk will assist those exploring for lithium understand the demand and market for the resource, guide exploration principles and techniques to move forward on a project as well as give current examples of novel and innovative lithium projects around the globe.

## Novel/Additive Information

Lithium subsurface brine exploration in conjunction with other technologies such as geothermal exploration and traditional near surface salar brine extraction.

## Acknowledgements

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