

Feasibility studies for a lithium brine mining project in northern Chile

Exploration, environmental and feasibility studies for the Blanco Lithium Project in Salar de Maricunga

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Positive DFS with an annual LCE production of 20 KT over a 20-year mine life



Secured environmental approval (RCA) from the Chilean authorities



Construction with an investment of USD 563 million is aimed to start in 2021

Challenge

The Blanco Lithium Project, located in Salar de Maricunga, III Region, Chile, is being developed by Minera Salar Blanco (MSB) and Lithium Power International (LPI). Results of early exploration activities in 2012 identified high-grade lithium resources that justified further investments to initiate feasibility and environmental permitting studies.

In order to secure successful completion of a positive Definitive Feasibility Study (DFS) as well as obtain environmental permits, MSB and Lithium Power International needed a thorough understanding of hydrologic systems and groundwater flows to ensure efficient lithium extraction while protecting the surrounding water system of Salar de Maricunga.

Solution

Atacama Water was contracted to act as a 'Qualified Person' for the lithium resource and reserve estimation work. This involved execution of more than 40 exploration holes, production wells, piezometer installations as well as numerous in-depth hydrogeological field investigations to support the development of the conceptual hydrogeological model for Salar de Maricunga.

In addition to the work Atacama Water performed, DHI built, calibrated and operated a FEFLOW numerical groundwater flow and transport model to simulate the brine production from the Salar, evaluate potential environmental effects to support the project's environmental impact assessment (EIA) and estimate the lithium brine reserves.

'We have achieved all project milestones thanks to our partnership with DHI and Atacama Water. Their experience and state-of-the-art mathematical models were key in securing the environmental go-ahead from authorities. We are confident that the subsequent commencement of the construction will generate a positive impact both for the local communities and the country.'

Cristobal Garcia-Huidobro, CEO
Minera Salar Blanco (MSB) and Lithium Power International (LPI)



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