

Strategic expansion of Salta lithium brine project

Highlights

- **Tabapocitos 01 licence in the Pocitos area of Salta Lithium project awarded to PepinNini after a successful multi-company ballot**
- **Tabapocitos 01 strategically located adjacent to site of proposed multi-user industrial park and critical infrastructure – potential site for future LIC plant for the Salta Project**
- **PepinNini now has three licences in the Pocitos area - previous exploration identified lithium brines best suited for processing by Direct Lithium Extraction (DLE) technology**
- **PepinNini to now include brine samples from Pocitos licences with brines from the Rincon and Incahuasi salares, and other Salta Project licences in upcoming DLE evaluation studies**
- **Aim is to develop lithium brine resources of sufficient scale to potentially support the development of LIC production at the Salta Project**
- **MoU with Sunresin for evaluation of DLE at Salta is progressing – final outcomes of brine blending program to be reported in near future**

Diversified minerals company PepinNini Minerals Limited (ASX: PNN) (**PepinNini** or **the Company**) is pleased to announce the strategic expansion of its 100%-owned Salta Lithium Brine Project in the lithium triangle of north-west Argentina, via the award of the Tabapocitos 01 licence.

The Tabapocitos 01 licence is located in the Pocitos area, in the southern part of the Salta Project area, and was awarded to PepinNini after a successful competitive ballot process.

Tabapocitos 01 is strategically located immediately adjacent to PepinNini's Pocitos 11 licence, and the site of a multi-user industrial park planned by the Salta provincial government (Figures 1 and 2). The Company plans to assess options to locate a plant at this site for the potential, future commercial-scale production of lithium carbonate (LIC) from the brines from the wider Salta Project.

In addition to the site of the proposed industrial park, PepinNini's Pocitos licences are well located relevant to critical road, rail and water infrastructure. This represents a significant benefit for any future project development.

With the award of the Tabapocitos 01 licence, PepinNini now has three licences in the Pocitos area - Pocitos 11, Tabapocitos 01 and Tabapocitos 02.

Directors

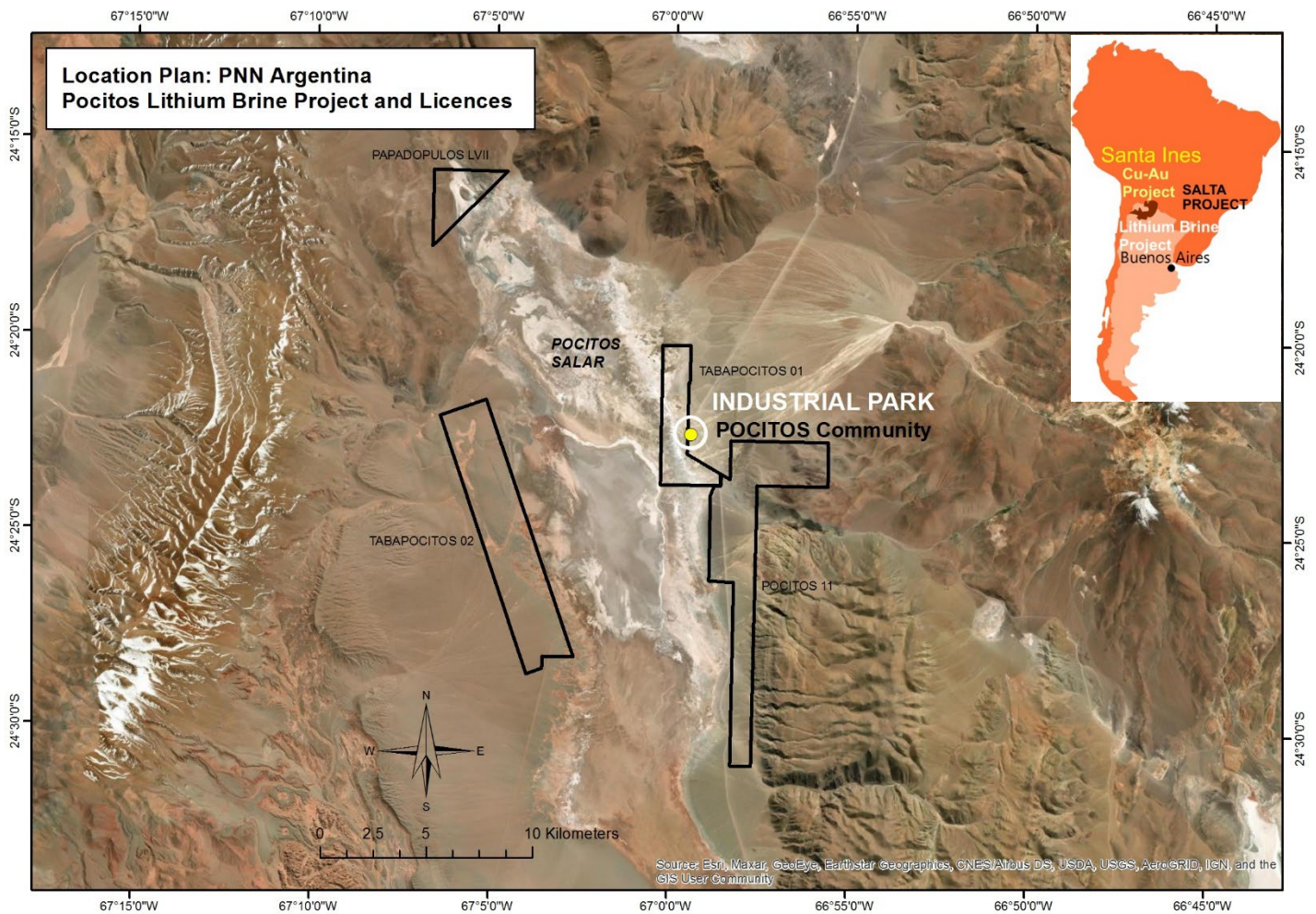


Figure 1: Location of PepinNini's Pocitos licences, Salta Province, NW Argentina

Previous exploration by PepinNini has identified lithium-bearing brines containing 40-90ppm Li at the Pocitos licences (ASX Announcements 8 May 2017, 30 May 2017, 31 July 2017, 17 August 2017, 31 October 2017). These lithium brines are considered by industry consultants and research groups to be best suited for processing by Direct Lithium Extraction (DLE) technologies.

PepinNini now plans to include brine samples from the Pocitos licences, in conjunction with brines from the Rincon and Incahuasi salares, and other licences within the Salta Project area in upcoming DLE evaluation studies, with a view to significantly expanding the Project's brine sources for potential commercial evaluation.

The Company's aim is to develop lithium brines resources from the Salta Project of sufficient scale to potentially support the development of a lithium carbonate (LIC) producing operation to supply lithium battery markets.

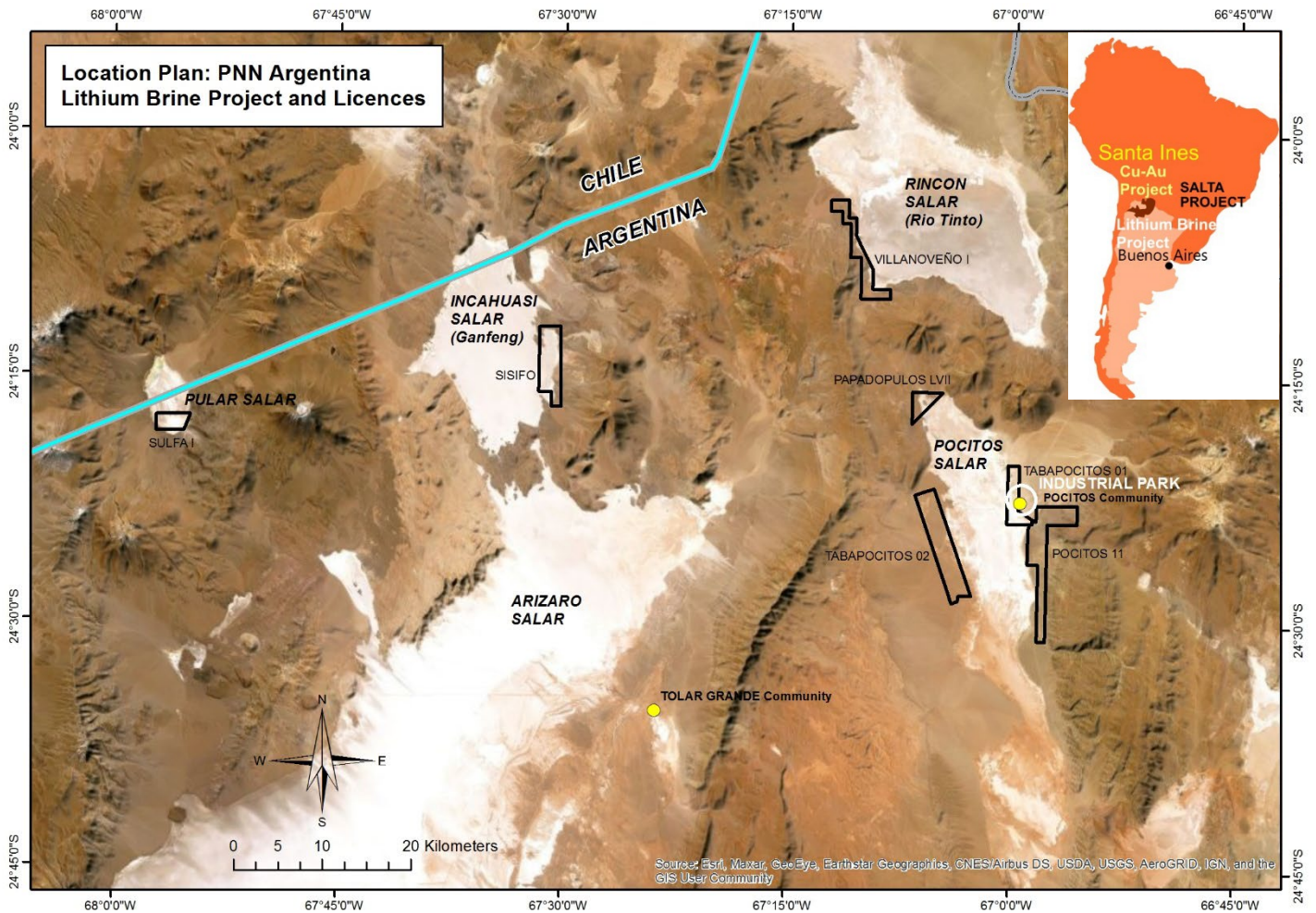


Figure 2: Salta Lithium Brine Project location, NW Argentina

Salta Lithium Project – Next Steps

PepinNini recently entered into a Memorandum of Understanding (MoU) with global lithium extraction company Sunresin New Materials Co. Ltd. (Sunresin) for the evaluation and development of DLE lithium extraction at the Salta Lithium Brine Project (ASX announcement, 7 April 2022).

The initial phases of the MoU involve a project review and process simulation, along with bench-scale DLE test work and a Preliminary Economic Assessment (PEA). PepinNini is currently in the process of making brine samples available to Sunresin to commence this work.

Sunresin's DLE technology is able to extract lithium from different brine sources, and deliver high recoveries, lower costs, expedited timetables and, most importantly, lower environmental and community impacts (Environment, Social and Governance (ESG) benefits).

PepinNini also advises that its brine blending program which commenced in May 2021 is now complete, and the final results and outcomes will be reported in the near future.



This program has blended the brines from the Incahuasi and Rincon salares, within the Salta Project, with the aim of delivering a higher lithium concentration with minimal deleterious elements and high lithium recoveries in the concentrated blended brine, compared to the lithium concentrate values of the individual salares.

The program has delivered exceptional results, with a blended brine concentrate of 5.3% lithium (Li) with low levels of contaminants being reported (ASX announcement 31 March 2022). The DLE program and the outcomes of the brine blending program will help determine potential development pathways and commercial monetisation opportunities for the Salta Project.

About the Salta Lithium Project

The Salta Project is strategically located in the Salta province in north-west Argentina and is part of the Lithium Triangle, the world's leading lithium brine region. The Project consists of five salares (salt lakes) that sit within seven mining leases, over a total project area of 147.07km².

The Project's Incahuasi salar is located immediately adjacent to Ganfeng Lithium Co. Ltd's project and the Rincon salar is adjacent to Rincon Mining Ltd, which is to be acquired by Rio Tinto Ltd for US\$825 million.

Authorised for release by the Board of PepinNini Minerals Limited.

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About PepinNini Minerals

PepinNini Minerals Limited is a diversified ASX-listed mineral resources exploration company with a portfolio of projects in demand driven commodities. It is focused on the systematic exploration and development of its projects. These include the Salta Lithium Brine Project in the prolific lithium triangle in the Salta Province in Argentina, the Eyre Peninsula Kaolin-Halloysite Project, strategically located on the Eyre Peninsula in South Australia, and the Musgrave Nickel-Copper-Cobalt-PGE Project in the Musgrave Province in northern South Australia. The Company also holds the Santa Ines Copper-Gold Project in Argentina, located in the same geological setting as BHP's world-class, nearby Escondida Copper-Gold Mine in Chile.