

# **ASX RELEASE**

#### ASX RELEASE

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PNN

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**Argentina** Salta Lithium Project

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**Australia** Eyre Peninsula Kaolin-Halloysite REE Project

Musgrave Nickel-Copper-Cobalt-PGE Project

# PEA delivers outstanding project economics for battery-grade lithium carbonate operation at Rincon salar

- Preliminary Economic Assessment (PEA) confirms the Rincon salar's potential to produce high-purity, battery-grade lithium carbonate
- PEA completed to Scoping Study-level delivers a robust, lowcost operation with US\$194.8m annual revenue forecast over an initial 14-year operation
- Annual production of 7,061 tonnes high purity lithium carbonate based on existing JORC Mineral Resource of 292,564 tonne LCE. Strong expansion potential for future Mineral Resource upgrades
- Pre-tax NPV of US\$501.85m with strong forecast margins, payback period of 3 years and pre-tax IRR of 42%
- Estimated capital expenditure of US\$216.55 million, based on lithium carbonate plant utilising Direct Lithium Extraction (DLE) technology
- Power will now move into feasibility study phase for Rincon.

Lithium exploration and development company Power Minerals Limited (ASX: PNN) (**Power** or **the Company**) is pleased to announce positive results from a Preliminary Economic Assessment (PEA) completed for the Rincon salar, a key part of its Salta Lithium Project in the lithium triangle of Argentina.

The PEA results provide initial formal confirmation of the Rincon salar's excellent potential to become a significant long-life supplier of high purity, battery-grade lithium carbonate equivalent (LCE), producing 7,061 tonnes of LCE per annum over an initial project life of 14 years.

The PEA forecasts a pre-tax NPV of US\$501.85 million, with payback period of 3 years, and pre-tax IRR of 42%.

The PEA is based on the recently reported JORC 2012 Mineral Resource at the Rincon salar, of 292,564 tonnes LCE (ASX announcements, 1 and 2 November 2023). Potential to further





increase the production profile contemplated in the PEA may exist based on future Mineral Resource upgrades at Rincon.

The PEA was conducted to Scoping Study level by global engineering and mining consultant Golder Associates (Golder), a division of WSP Global. Golder worked in conjunction with Power's Direct Lithium Extraction (DLE) partner Sunresin New Materials Co. Ltd (Sunresin) to deliver the PEA at Rincon. Golder has current, relevant experience working with tier-1 lithium-brine companies, including Ganfeng and Tibet Summit Resources, which are using Sunresin DLE technology.

The PEA assessed production and life-of-mine profile, along with engineering and process costs, plus capital costs and operating costs for a potential high-quality LCE producing operation at Rincon.

# A detailed summary of the Rincon Salar PEA is appended to this announcement.

# Key outcomes and parameters of the PEA are presented in Table 1 below.

Economics Overview	Units	Li₂CO₃	
Production	TPA	7,061	
Mine Life	years	14	
Capital Cost (CAPEX)	US\$	216,555,282	
Sustaining CAPEX		41,622,032	
CAPEX Payback Period	years	3	
Operating Cost (OPEX)	US\$	54,622,032	
Annual Revenue	US\$	194,853,901	
Average Selling Price	US\$/t	27,600	
Discount Rate	%	10.00	
Net Present Value (NPV) Pre-Tax	US\$	501,851,686	
Internal Rate of Return (IRR) Pre-Tax	%	42%	
Net Present Value (NPV) Post-Tax	US\$	308,841,028	
Internal Rate of Return (IRR) Post-Tax	f Return (IRR) % 33.8%		

**Table 1:** Rincon salar PEA key parameters and outcomes

See Figure 1 for conceptual location Plan for proposed Rincon DLE development and Figure 2 for Salta Lithium Project location map.





"We are extremely encouraged by the outcomes of this Preliminary Economic Assessment (PEA) for the Rincon salar, a priority development asset within our Salta Lithium Project in Argentina. The PEA provides initial formal confirmation of the technical and financial viability of the potential to develop Rincon into a new, long-life source of high purity lithium carbonate. The outcome of the PEA is outstanding validation of our demonstrated commitment to the rapid development of the Salta Lithium Project. Having commenced a major Resource expansion drilling campaign at Salta late last year, Power has delivered a substantial JORC Mineral Resource upgrade, and is now engaged in development-phase programs at its priority Rincon and Incahuasi salares."

**Power Minerals Managing Director Mena Habib** 

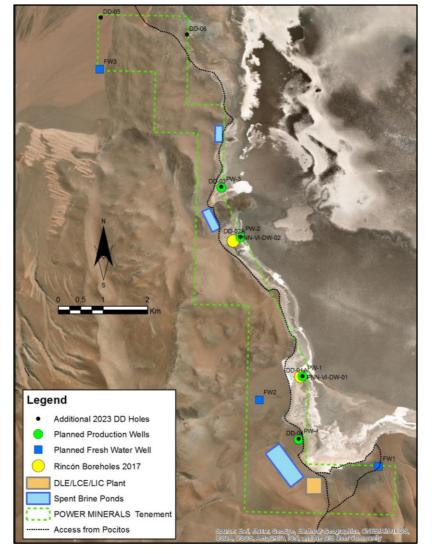


Figure 1: Location Plan for Proposed Rincon DLE Development





# **Key Parameters of the Rincon PEA**

- Total LCE production accounts for 87.5% DLE processing efficiency.
- Power's proposed well field will consist of 7 production wells.
- Ramp-up to full production is estimated to be two years, with lithium carbonate production scheduled to commence in the third year of operation.
- Pricing for lithium carbonate of US\$27,600 / tonne has been assumed for the life of the operation (compared to historic price US\$38,230 / tonne LCE for immediate previous 3 years and US\$30,496 / tonne LCE for immediate previous 5 years – refer appended extract from WSP Golder's PEA report.
- CAPEX and OPEX are estimated with a -25% to +35% margin for error.

The PEA referred to in this announcement has been undertaken for the purpose of initial evaluation of a potential development of the Rincon Lithium Brine Project in Argentina. It is a preliminary technical and economic study of the potential viability of the Rincon Project. The PEA outcomes, production target and forecast financial information referred to in the release are based on low level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The capital and operating cost estimates in the PEA are presented in US dollars to an accuracy level of - 25% to +35%.

To achieve the range of outcomes indicated in the PEA, funding in the order of US\$216 million is estimated. Investors should note that that there is no certainty that the Company will be able to raise that level 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 the Company's existing shares. It is also possible that the Company could pursue other value realisation strategies such as a strategic partners, joint ventures or investors or sale or partial sale of its interest in the Rincon Lithium Brine Project.

The PEA has been undertaken under the guidelines of the Association of Australian Mining Exploration Companies (AMEC).

# 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 147.07km<sup>2</sup>. 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, recently acquired by Rio Tinto Ltd for US\$825 million. Power is focused on the accelerated exploration and development of the Project, to drive shareholder value.





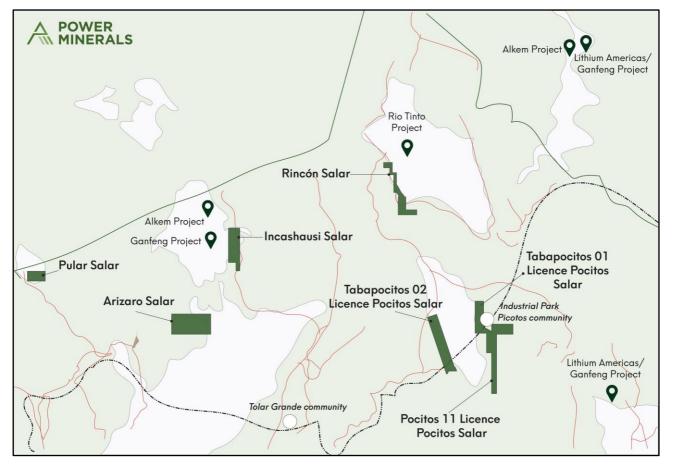


Figure 2: Salta Lithium Brine Project location map, north-west Argentina (PNN licences in green)

Authorised for release by the Board of Power Minerals Limited.

# -ENDS-

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## **About Power Minerals Limited**

Power Minerals Limited is an ASX-listed lithium-focused exploration and development company, committed to the systematic exploration and development of its core asset, the Salta Lithium Brine Project in the prolific lithium triangle in the Salta Province in Argentina. It is currently undertaking a major JORC Mineral Resource expansion drilling campaign at Salta, and is focused on expediting development of the Project in to a potential, future lithium producing operation. Power also has a portfolio of other assets in key, demand-driven commodities including; kaolin-halloysite and REE plus nickel-copper-cobalt and PGEs.

## **Competent Persons Statement**

This announcement regarding the Salta Lithium project has been prepared with information compiled by Marcela Casini, MAusIMM (CP). Marcela Casini is an experienced and highly qualified consultant hydrologist working with PNN Argentina, and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Marcela Casini consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

## **Forward looking Statements**

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses.

Generally, this forward-looking information can be identified using forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.





# Extract from WSP Golder's PEA Report, November 2023 Rincon Salar Preliminary Economic Assessment Summary

This Report, following JORC rules and guidelines for the lithium brine Projects, was prepared for Power Minerals (PM), by Golder, a division of the WSP Group. The quality of information, conclusions and estimates contained herein, is consistent with the level of effort involved in Golder' services and is based on the following:

- Information available at the time of preparation.
- Exploration data and resource estimation supplied by Power Minerals.
- Data supplied by outside sources.
- Assumptions, conditions, and qualifications set forth in this Report.

# 1. Introduction

The following report has been prepared by GOLDER China ("GOLDER") in conjunction with a JORC compliant Independent Technical Report on the PNN Rincon Lithium (Rincon) project, in Salta Argentina. The report provides a comprehensive assessment of geological, technical, engineering, operational and commercial aspects (economic analysis) under which the Rincon Project in northwest Argentina may be considered potentially economic so that the current development program can continue.

# 2. Property location, description, and ownership

The Rincon Project is located at the west of Salar del Rincón in Los Andes District from Salta Province, Argentina. The project comprises a single mining concession (The Property), registered at Salta Mining Court with the name Mina Villanoveño I (File 19.595). Salar del Rincon is a classic mature salar and it is located approximately 4,000 metres above sea level (masl). The project occupies an area of approximately 1583 ha. The overall Rincon drainage basin has an area of approximately 2,800 km<sup>2</sup>. The Property is maintained in good standing and not subject to any known environmental liabilities.

# 3. Accessibility, climate, local resources, infrastructure, and physiography

The most common site access is from the city of Salta via national road 51 (RN51) to the town of San Antonio de los Cobres at approximately 170 km, which is the last town on the road with basic services. Beyond San Antonio de los Cobres, RN51 is unpaved (gravel) for 90 km until reaching the project area. The distance between Salar del Rincón and Antofagasta, Chile, is approximately 450 km.

The climate at Salar del Rincón is arid and cold, high-altitude climate (BWk, cold desert; or EB, highmountain tundra according to the Koppen-Geiger classification), with scarce vegetation. Solar radiation and evaporation rates are high, especially during spring and summer months (October through March). Precipitations occur irregularly during the austral summer months (December to March) and can result at times in flooding conditions. The Puna is a depression in altitude surrounded by high mountains.

The region is furrowed by a series of mountain ranges with short drainage areas most of which have a salt flat (salar) in the depressions.





The infrastructure in the Project area includes a 600 megawatt/375 kilovolt (KV) power line between Salta and Mejillones, and a natural gas pipeline passes 25 km from the Property area.

A railway is being reactivated between Salta and the Antofagasta seaport in Chile. Experienced bluecollar labour is available in communities surrounding the project. Current provincial regulations require that 60% of staff be residents of Salta province. Salta, and other provinces in Argentina, can provide experienced and skilled professionals qualified to operate and conduct mining operations.

# 4. Geological setting and mineralisation

Rincón Salar is a tectonic drainage basin filled with clastic sedimentary material and evaporites which are fringed with detrital material from the margins. Unconsolidated clastic sediments have accumulated as erosion products of the bedrock. The Rincon Salar sits between the intersection of north-south structures and the northwest magmatic structural corridor Calama-Olacapato-El Toro.

This intersection closed the drainage and formed the basin, as well generated weak spots where magmatism and hydrothermal activity have been developed at least since the early Tertiary. In the south of the Salar there are mountains of volcanic andesitic origin, which exceed 5,000 m in height: Cerros Tul Tul, Del Medio and Pocitos.

Towards the north and west margins, flows of ash tuffs, andesitic lavas, and ignimbrites were generated during the late Tertiary and Quaternary from the volcanic activity of Cerro Rincón (5,600 m high), located on the border between Chile and Argentine. The eastern margin of the Salar borders the Sierra de Guayaos, it is a mountain range formed by Ordovician rocks of the Coquena Formation (Schwab 1971).

# 5. Deposit types

These reservoirs are accumulations of brines that occur as groundwater in terrigenous lacustrine clasticevaporite depositional environments, where brines have purportedly gained lithium from different possible sources predominantly from the leaching of the volcanic rocks and hydrothermal fluids, which have accumulated in the salar itself during mid-late Tertiary and Quaternary. Lithium, as well, as other elements, occur as dissolved elements in the saline brine. In the Altiplano and Puna region, most brines contain lithium in concentrations with economic interest.

Lithium is highly soluble; in contrast to sodium (Na), potassium (K), or calcium (Ca), and it does not readily produce evaporite minerals when concentrated by evaporation. Instead, lithium accumulates in residual brines at the subsurface of the salares. Other elements in solution, such as boron and potassium, may be recovered as by-products or co-products. Brines may also contain undesirable elements that may create problems in processing (magnesium) or toxic elements that require care in waste disposal (Garrett, 2004).

At the Salar margins, clastic sediments are found interbedded with halite. Detrital materials, mainly sands, argillaceous silts and clays of alluvial origin occurs throughout the project area. The main aquifer





consists of a volcanic agglomerate which may be related with the first filling of the basin. The salar nucleus, consists predominantly of a halite salt (NaCl) thick body.

# 6. Exploration

The geophysical program was designed to test potential brine aquifers within the sedimentary units using Vertical Electrical Sounding (VES). The goal of the surveys was to obtain a preliminary understanding of the underlying stratigraphy of the project property, identify potential geologic structures, and the freshwater/brine interface. Low resistivity layers were interpreted as containing brine with high possibilities of containing lithium. The survey was carried out by Mercoaguas SRL in three different campaigns, 2017 to identify conductive layers below the salt crust of the salar, 2018 to explore beneath the west alluvial fans and in 2022 to explore new areas at the north of the property.

# 7. Drilling

The 2017 drilling program was completed with two drill holes to only shallow depths without penetrating the basement, whereas drilling in the 2023 program intersected intervals of up 600 metres of lithium-bearing brines, also without encountering the basement.

Drillhole PM23-VI-03 was planned to explore new areas in the North of the Tenements to complete the knowledge of the stratigraphy of the salar, sampling for drainable porosity and brine concentration to define a deeper and greater resource. After or during drilling, the well, brine samples were collected at constant depth intervals using packer sampler, the goal of this program was to obtain a complete logging of lithium and deleterious elements of the brine at depth.





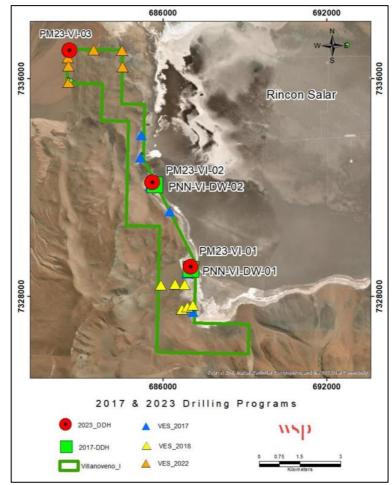


Figure 3: Location of the Rincon exploration wells and Vertical Electrical Survey (VES)

After completion the drillhole, core samples were collected from different depths for testing drainable porosity of the main lithological units. PM23-VI-03 was the only drillhole that penetrated the basement at a depth of 306.6 m. In total 172 core samples were recovered from drilling cores for drainable porosity measurements and 84 brine samples were collected and sent to the laboratory for chemical analysis. 37 blind samples were inserted as Blank, Duplicated and Standard in order to fulfill with a complete QA/QC program. Location of the Rincon exploration wells and VES Electrical Survey are shown on Figure 3.

# 8. Mineral Resource Estimate

The method used for the 2023 Mineral Resource estimate was the same as the method used in the previous 2018 Mineral Resource estimate. The Measured + Indicated resources increased by 162% compared to 2018, while the Inferred Resources increased by more than 20 times.



The Resource domain area was divided into polygonal areas. The Polygons were delineated based on the following criteria:

- Three of the polygon blocks contain a diamond drillhole, and the others were explored with Vertical Electrical Soundings (VES) geophysics (Mercoaguas 2017, 2018b, 2022) and are close enough to be associated with the hydrogeological parameters of the nearest drillhole. Polygons were defined in the Resource domain, as shown in Figure 59 to Figure 61 and Table 27.
- The Polygons areas were defined by photo interpretation of satellite images, identifying the extent of the salar surface. In addition, aquifers below the alluvial fan material were defined using geophysical surveys (Mercoaguas, 2018b, 2022) and where the productive stratigraphy was present were also included in the polygons. Hard rock units both underlying the basin fill aquifer and in the west part of the concessions were excluded from polygon blocks, even though some of these rocks may contain brine resources within fractures as demonstrated during packer sampling. A summary of the resource upgrade is shown in Table 2.

Year	Resource 2018		Resource 2023	
Resource Category	Measured + Indicated	Inferred	Measured + Indicated	Inferred
Brine (m3)	4.60E+07	3.70E+06	1.13E+08	9.24E+07
Lithium Grade (mg/L)	244	288	258	276
In Situ Lithium (Tonnes)	12000	1000	29,519.98	25,443.37
LCE (Tonnes)	60000	6000	157,130.77	135,433.02
Total LCE M+I+I (Tonnes)	66,000		292,564	
LCE Resource Upgrade (%)			162%	2157%
Total LCE Resource Upgrade (%)	343%			

**Table 2:** Upgraded Lithium JORC Mineral Resource, with reference to previous JORC Mineral Resource of 2018

There is currently a low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that future exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

# 9. Mineral processing and metallurgical testing

Testing of the PNN Rincon brine started in 2018 with bench scale experiments and continued to 2021. Tests have been performed both by Ad-Infinitum, SunResin (SR) and independent consultants. Two approaches to extracting lithium from the brine were investigated, including a novel direct extraction technology tested by laboratories in China.

SunResin established that the Rincon brine is suitable for the DLE process and will be able to produce high purity battery grade lithium carbonate. Lithium from the Rincon brine can be extracted with at least a 90% recovery and the water stripping yields a brine with minimal carryover of other elements such as Mg, Ca, Na and B. DLE was selected as the choice technology for the project.



## 10. Mining methods

Brine extraction from Rincon Project will involve installing and operating a conventional brine production wellfield. Brine with lithium is pumped to the surface using electric submersible pumps and is transported through a system of pipelines to the DLE process plant. The potential mining plan from this report envisions a production of approximately 7,000 tonnes of LCE, for 14 years.

The Mineral Resource available for production is a portion of the brine from the resource estimated in November 2023. The mining plan assumes the extraction of a portion of the estimated inferred resource which will be upgraded to Measured and Indicated Resource classification once the pumping well field is drilled. The total LCE accounts for 87.5 % of DLE processing efficiency. The well field will consist of 7 production wells. The ramp-up to full production is estimated to be two years.

Table 3 shows the percentage of resources need to be pumped to achieve a 7,000 TPA LCE production for a 14-year life (considering ramp up).

Parameter	PNN Rincon	
Production wells flow rate (I/s, average per well)	26.6	
Number of pumping wells	7	
Feed brine (Mm <sup>3</sup> per year, Year 3-13)	5.87	
Years of production	14	
Total brine extraction volume (14 yrs, Mm <sup>3</sup> , considering ramp-up and Year 14 drop-off)	75.0	
Average brine concentration Li (mg/l)	258	
Total LCE before recovery factor (14 yrs, tonnes)	102,942	
Total Measured Resources (LCE, tonnes)	144,716	
Accounting for Measured Resources (%)	47.0%	
Production from Measured Resources (LCE, tonnes)	68,017	
Total Indicated Resources (LCE, tonnes)	12,415	
Accounting for Indicated Resources (%)	47.0%	
Production from Indicated Resources (LCE, tonnes)	5,835	
Total Inferred Resources (LCE, tonnes)	135,433	
Accounting for Inferred Resources		
Production from Inferred Resources (LCE, tonnes)	29,090	
Total Production from M+I+I Resources (LCE, tonnes)	102,942	
LCE produced after recovery of 87.5% (tonnes)	90,074	
LCE produced per year (TPA, Year 3-13)	7,060	
Percentage production LCE from Measured + Indicated Resources	72%	
Percentage production LCE from Inferred Resources		

**Table 3:** LCE production profile over 14-year life at PNN Rincon.

**Note:** due to rounding of significant digits, may be slight discrepancies may occur.



There is currently a low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that future exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

In terms of the Life of the mine (LOM) as shown in Table 4, Year 0 is the year of construction and has zero production and Year 14 has a very small production due to the ramp down.

Year	Year #	LCE Resource Utilised	Type of Resources	
2024	0	6,449	Measured	
2025	1	7,255 Measured		
2026	2	8,061 Measured		
2027	3	8,061 Measured		
2028	4	8,061 Measured		
2029	5	8,061 Measured		
2030	6	8,061	Measured	
2031	7	8,061 Measured		
2032	8	8,061	Measured	
2022	2022	5,946	Measured	
2033 9	9	2,115	Indicated	
2024	10	3,720	Indicated	
2034		4,341	Inferred	
2035	11	8,061	Inferred	
2036	12	8,061	Inferred	
2037	13	8,061	Inferred	
2038	14	642	Inferred	

Table 4: Life of Mine (LOM) Year-by-Year Schedule

Note: 1) Percentage production LCE from M+I for Years 1 to 10: 94.5%.

- 2) Percentage production LCE for Inferred from Years 11 to 14: **5.5%**.
- 3) Inferred Resources are of lower-level confidence. Additional drilling and pumping tests will be required to convert the Inferred Resources to Measured and Indicated Resources.





## 11. Process recovery methods

Power Minerals plans is to produce about 7,000 tonnes per annual (tpa) of lithium carbonate starting from a brine extracted at the Salar del Rincon. Golder has evaluated the following brine processing alternatives for the Salar del Rincon to recovery lithium from brine:

- Production using a traditional solar evaporation process
- Production of lithium carbonate utilising a direct extraction proprietary process. Because of the higher recoveries and lower footprint, the direct extraction method was selected for developing preliminary economics for this PEA. The brine processing steps include direct feed to a resin extraction and elution steps, purification, concentration, and lithium carbonate production.

## 12. Project infrastructure

A conceptual review of the site location with layout options was undertaken to select a preliminary location for the brine wells, spent brine pond(s), adsorption plant, lithium processing plant, and site infrastructure, taking into consideration potential environmental risks and hydrological and geotechnical investigations. Based on this review, the brine wells, ponds and processing plants and existing camp will be located adjacent to the Salar.

Infrastructure at the salar site consists of a power generating plant, power distribution, water, and ancillary facilities such as camp, waste treatment and buildings for warehouses, truck shop, office buildings and reagents and fuels storage.

## 13. Market studies and contracts

Lithium is one of the most versatile elements and one of the most sought-after. The very low solid density of lithium (0.534 g/cm3 compared with water 1.00 g/cm3) combined with exceptionally high specific energy (between 260 to 270 mh/kg compared with lead-acid batteries 50 to 100 mh/kg) makes lithium the preferred material for mobile (personal and vehicle) batteries. The material is also used in a variety of applications, including the production of ceramics, glass and aluminum, and pharmaceutical uses, but it is the use in lithium-ion batteries that has driven the lithium industry's dynamics in recent years.

The fast-growing market for hybrids and Electric Vehicles ("EVs") is being driven by regulations and targets on CO2 emission reductions, falling battery costs, improved driving range and expanding charging infrastructure. All major automotive OEMs have announced aggressive growth plans in battery-powered electric vehicles.

Overall, lithium demand is expected to grow from 0.5 million tonnes of LCE in 2021 to 5.6 million tonnes by 2040, representing a CAGR of 13%. Battery demand already accounts for a significant portion of overall demand, but with the global push towards battery EVs and energy storage needs from renewable power generation sources, battery use is expected to make up substantially most of future lithium demand.



Battery demand constitutes 78% of total lithium demand in 2021, but by 2040 it is expected to make up 96% of total demand, growing at a CAGR of 15%. We looked at the trailing 3-year and 5-year average spot price of battery grade LCE as support for projected average LCE price over the next 5 to 10 years. The average prices are shown in Table 5 below.

# Table 5: 3-year and 5-year average spot price of battery grade LCE

LCE Price	From	То	LCE (CNY/T)	LCE (USD/T)
Average over the last 5 years	10/8/2018	10/5/2023	211,139	30,689
Average over the last 3 years	10/5/2020	10/5/2023	267,235	38,858

We believe it is reasonable to assume a battery grade LCE price of US\$27,600/tonne for the next 5 to 10 years.

# 14. Environmental studies, permitting and social or community impact

According to current regulations in Argentina, an environmental impact report (EIR) must be filed prior to commencing field works and must be updated every two years. The authors are not aware of any environmental liability associated with the activities performed in Villanoveño project.

Power Minerals (PM) is committed to developing the project in a manner that complies with all government regulations and displays good management with regard to the environment and social communities. As of the date of this report, PM is in process of submitting a new EIR for advanced exploration in the project. Aside from this, PM has not applied for any other permits.

The EIR for exploration stage will contain description of the environment, description of the project, description of the environmental impacts, environmental management plan, action plan against environmental contingencies, methodology used, standards consulted and description of social responsibility initiatives. The project is located within the "Reserva Natural de Usos Múltiples Los Andes" where mining activities are allowed in accordance with Resolution No. 428/18 of the Secretary of Environment and sustainable development. The Project is not anticipated to have any significant impact on the current social setting of the region.

# 15. Capital and operating costs

Capital and Operating Cost estimates as developed by Golder are based on an average capacity of 7,000 tonnes per year of Lithium Carbonate. A simple breakdown structure was developed to facilitate cost allocation of the different elements to the Salar and the process facilities.

The total CAPEX is estimated at US\$216,555,282 inclusive of contingency but exclusive of owners' costs. The CAPEX and OPEX are compliant with a Class 4 Estimate (-25% to +35%), as defined in American Association of Cost Engineers (AACE) International Recommended Practice. The estimates have been based on equipment packages budget prices and materials consumptions supplied by technology



vendors and inhouse data from similar projects in Argentina. The capital estimate includes direct and indirect project costs, a 25% contingency, freight and taxes.

OPEX includes manpower, reagents, consumables, power, camp costs and contingency. For a 7,000 tonnes per annum production the total operating cost is estimated at US\$7,786/tonne LCE.

# 16. Economic analysis

A financial analysis of the project was carried out using a discounted cash flow (DCF) approach. The following criteria have been used to develop the economic model:

- Project life estimated at 14 years.
- Pricing for Lithium Carbonate of US\$27,600/tonne constant for the life of the operation.
- Production for Lithium Carbonate is 7,000 tpa of starting in the third year of operation, assuming a ramp up rate of 60% for the first year of operation and 80% for the second year of operation.
- The Discounted Cash Flow (DCF) economic evaluation was carried out on a constant money basis so there is no provision for escalation or inflation on costs or revenue.

The project is currently estimated to have a payback period of three years. The economic analysis indicates a pre-tax Net Present Value (NPV), discounted at 10%, of approximately US\$501 million with an Internal Rate of Return (IRR) of approximately 42%. The post-tax NPV is approximately US\$308 million and the post-tax IRR is 33.8%.

# 17. Adjacent properties

Rincon Salar is 90% owned by Rio Tinto who holds 40,000 hectares of concessions. The north of the PNN project limits with Argentina Lithium Energy, Company that holds 3,500 hectares and it is in active exploration since 2020.

# 18. Other relevant information

A level 1 Project Schedule has been prepared considering future project activities. The schedule covers the entire Project life cycle from the start of the PEA study until commissioning and ramp-up production capacity is reached.

# **19. Conclusions and recommendations**

The Rincon Lithium Project is at a relatively early stage of exploration. The initial results for lithium concentrations from recent exploration activities support the concept that brine enriched in lithium occurs in large quantities within the connected pores of the aquifer and may be favourable for production. The overall geometry of the basin continues to become better known with the analysis of exploration pumping wells which are employed to help define the hydraulic properties of the aquifer and prove resource extractability.



The basin geology will be important for the development of a numerical groundwater flow model capable of conducting well field simulations and estimating the amount of lithium that can be extracted. The geology is sufficiently well understood to support the mineral resource and presented in this report.

Adequate drilling has identified a continuous body of lithium brine within a porous aquifer.

The ultimate limits at depth have not been defined. In general, the drilling results for the Project imply elevated homogeneity of lithium concentration throughout the project, which will simplify the production strategy and process testing.

The PM drilling plan covered different geomorphological areas of the tenements (Salar crust and alluvial fan); the results indicated that the lithological units are similar for each delimited resource area. This aquifer homogeneity makes possible a reliable assumption of the brine volume of the defined hydrogeologic units.

The risks and uncertainties of the Project are currently related to the lack of pumping wells. In addition, a lithium JORC Mineral Reserve estimate is still needed, requiring a calibrated groundwater flow mode and a cut-off study.

Recommendations include deepening the boreholes to reach the basement and installing pumping wells to test the hydraulic properties of the aquifer in order to prove extractability.

Additional trade-off studies will be conducted in to evaluate and optimise water, utilities, geotechnical and road construction. Environmental baseline studies will also commence in 2023 in order to apply for permits.

ENDS