

# PepinNini Minerals (ASX: PNN)

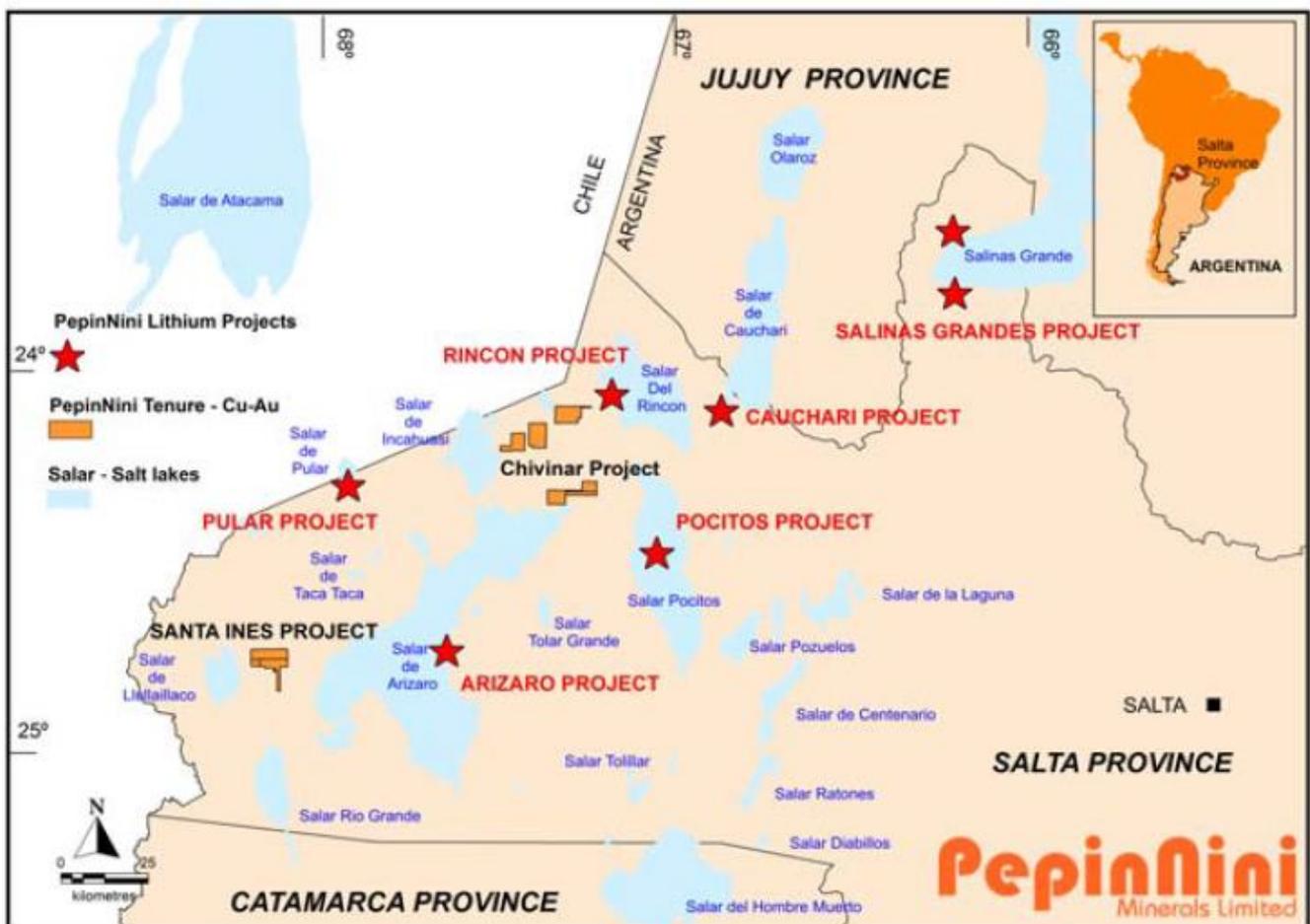
## Salta Lithium Project – Exploration Update

27 April 2017

### Exploration Update

- PNN announced on 27 April 2017, that drilling permits have been approved and await signature next week by the Mining Secretary for drilling at PNN's tenements at Salar Pocitos (**Pocitos Project**); drilling contractors will be confirmed next week with drilling to commence shortly thereafter.
- Phase 1 drilling will be two (2) diamond drill boreholes to test for lithium brine bearing aquifers and sample collection to test for lithium grade. Sample results would be expected in early June. Phase 2 drilling will be two (2) pumping test wells to determine the hydraulic properties of the aquifers.
- Drilling permits have also been approved for the **Pular Project**, with drilling planned for August/September 2017. Drilling Permit applications for the **Cauchari Project** were lodged on 20 April, and granted permits are expected before July.

### PNN's Lithium Project – Salta Province, NW Argentina



Source: Company

## State One Stockbroking comments

- Obtaining drilling permits at Pocitos is an important step towards the group's primary near-term objective - **establishing a JORC 2012-compliant Maiden Lithium Resource before the end of 2017**. Based on guided expenditure for the June quarter (as disclosed in PNN's March quarter Cash Flow Statement (Appendix 5B)), we estimate that the four-hole drilling programme at Pocitos will cost some A\$500k. Importantly, we believe that after successful capital raising initiatives carried out between February and April, **PNN is adequately funded to carry out this programme (and indeed subsequent planned drilling programmes at Pular and Cauchari)**. We estimate PNN's financial year-end cash position at A\$2.3m. See table below.

### PNN - quarterly cash flows (March 2016 – June 2017)

(A\$'000)	Estimate						Total
	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	
Beginning qtr. cash balance	828	391	415	903	675	1,428	
...Exploration & evaluation	-194	-265	-291	-316	-264	-375	-1,705
...Admin/corporate/other	-243	-124	-178	59	-217	-125	-828
Operating cash flows	-437	-389	-469	-257	-481	-500	-2,533
Investing cash flows	0	0	0	29	0	0	29
Financing cash flows	0	413	957	0	1,234	1,382	3,986
End qtr. cash balance	391	415	903	675	1,428	2,310	

Source: Company, compiled by State One Stockbroking

Note: Financing cash flow of A\$1,234,000 in March quarter 2017 is comprised of a A\$600k placement in February (500m shares @ A\$1.2cps) and a A\$634k placement in March (264m shares @ A\$2.4cps). We forecast an additional A\$1.38m (after costs) equity inflow in the June quarter from a 1:4 entitlement offer (61.4m shares @ A\$2.4cps as at 21 April 2017). Successfully filling a 35.5m share shortfall could result in an additional A\$850k of funding (and a potential year-end cash balance of over A\$3m).

### Potential Maiden Resource of 1.45Mt LCE- from Pocitos Project

- Geophysical surveys carried out by PNN in the December quarter of 2016 indicate deposit thickness of 181m at Pocitos West and 85m at Pocitos East. This implies an attractive average thickness for Salar Pocitos as a whole; for estimation purposes, we assume an average deposit thickness of 135m.
- We assume an average lithium grade of 400mg/L; this is in-line with grades determined from historical drilling (1979, 12 holes) in the region by the Argentinian government agency (DGFM).
- Predicated on the above key assumptions, **we calculate a potential / indicative Maiden Resource for PNN of ~1.45Mt lithium carbonate equivalent (LCE)**. As a comparative, the Resource at Orocobre's (ASX: ORE) flagship producing Salar de Olaroz Project is some 6.4Mt of LCE.

### Salar Pocitos: estimated Maiden Resource sensitivity analysis - Lithium Carbonate Equivalent (Mt)

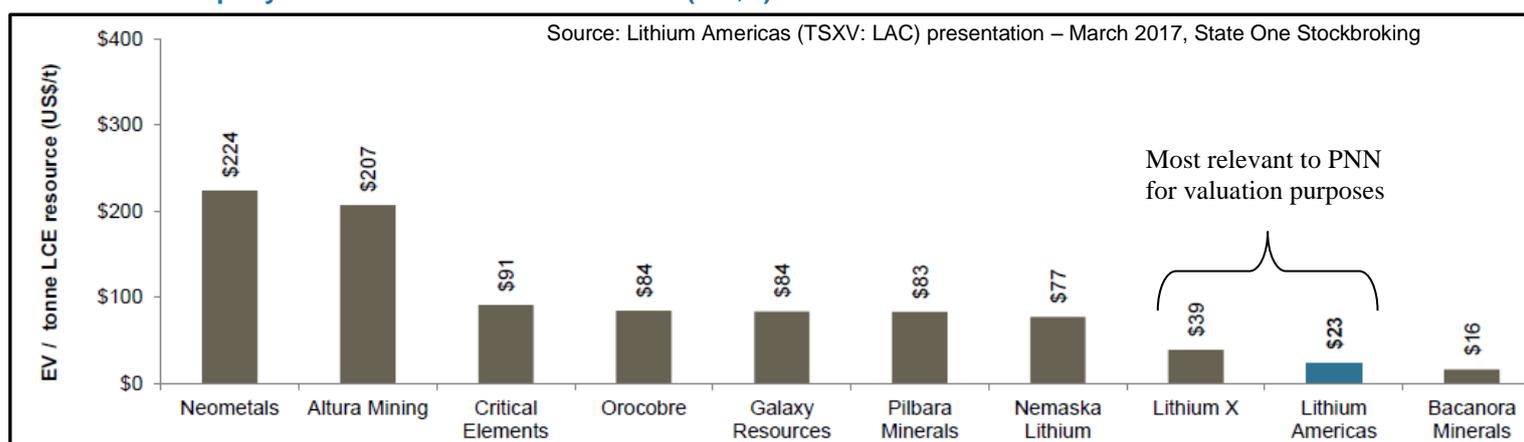
		Average deposit thickness (m)				
		105	120	135	150	165
Average Li grade (mg/L)	300	0.84	0.97	1.09	1.21	1.33
	350	0.99	1.13	1.27	1.41	1.55
	400	1.13	1.29	1.45	1.61	1.77
	450	1.27	1.45	1.63	1.81	1.99
	500	1.41	1.61	1.81	2.01	2.21

Source: State One Stockbroking  
 Assumptions: potential brine area = 85% of Salar Pocitos 5,970ha combined tenement (mina), base case average deposit thickness = 135m, base-case lithium grade = 400mg/L, base-case brine yield = 10%, conversion ratio: 1t Li = 5.29t Li<sub>2</sub>CO<sub>3</sub>.

## Potential value of 1.45Mt LCE Resource = US\$45m @ peer average EV of US\$31/t LCE

- At a forecast long-term lithium carbonate price of US\$10,000/t, our estimated/indicative Salar Pocitos Maiden Resource of 1.45Mt LCE has an in-situ value of US\$14.5bn.
- A Resource in-situ value has limited use for company valuation purposes as it does not capture timing, financing, operating, costs, or legislative risks. Valuing companies on an EV/t basis is a significant improvement. However, as illustrated below, there is a wide dispersion in company EV/t valuations depending on the nature of the lithium Resource (hard-rock [i.e., spodumene] vs brine), grade, size, location, and stage of development (production versus exploration/development).
- We believe that Lithium X (TSXV: LIX) and Lithium Americas (TSXV: LCA) - both early stage developers of lithium brine projects in Argentina - are the most appropriate peers to PepinNini. Note: Orocobre (ASX:ORE), is a well-established producer and not directly comparable to PNN, while Bacanora Minerals' (TSXV:BCN) clay-based project in Mexico is not directly comparable to lithium brines.
- **Based on an average LIX-LCA EV/t of US\$31/t, we calculate that PNN's potential 1.45Mt Maiden Resource could be valued at US\$45m (A\$60m); this compares to PNN's current m'cap of (only) A\$12m.**

### Lithium company valuations: EV/t LCE Resource (US\$/t)



### Argosy Minerals (ASX:AGY) - a possible development template for PNN?

- ASX-listed Argosy Minerals (M'Cap A\$51m) has projects at Rincon, Pocitos, and Mina Teresa. PNN also has tenements at Rincon and Pocitos, while PNN's Salinas Grandes tenements are adjacent to Mina Teresa.
- AGY's most advanced project is at Rincon. The Project, comprising 654ha of mining concessions, is a JV partnership with a local lithium-processing expert. AGY has established a 3-Stage development plan -Stage 1: laboratory-scale production (100t LCE) – estimated capex A\$5m, Stage 2: pilot plant (1,500tpa LCE), Stage 3: commercial production.
- We note that on 26 April, AGY announced that it had recently completed the pumping of lithium brine into initial evaporation ponds as part of its Stage 1 development programme. The lithium brine will now undergo natural solar evaporation for nine months, to obtain a concentrated brine for final processing through laboratory-scale plant, to produce a LCE product.

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*Note: State One Stockbroking was Lead Manager for PNN's A\$1m capital raising in July 2016, A\$0.6m capital raising in February 2017 and A\$0.6m capital raising in March 2017.*

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