

12 December 2018

**ASX CODE: PNN**

**Speculative Buy**

**Capital Structure**

Sector	Materials
Share Price	\$0.006
Fully Paid Ordinary Shares (m)	686.7
Options (ex 2.7c, exp 20/9/20) (m)	7.2
Options (ex 4c, exp 9/11/20) (m)	4.3
Options (ex 5c, exp 11/5/21) (m)	3.8
Options (ex 5c, exp 16/3/21) (m)	1.0
Options (ex 3-10c, exp 2019-23) (m)	0.9
Market Capitalisation (undil) (m)	\$4.1
Share Price Year High-Low	\$0.094-0.005
Approx Cash (m)	A\$0.2

**Directors & Management**

R. Holland-Kennedy	Chairman & MD
Philip Clifford	Non-Exec Director
Sarah Clifton-Brown	Non-Exec Director
Justin Nelson	Company Secretary

**Major Shareholders**

Kalinda Outlook Pty Ltd	12.2%
Querion Pty Ltd	5.9%
Jorgenson-Watts	2.5%
Acuity Capital Investment	2.2%
Martin John Boyd	2.2%
George Holland Pty Ltd	2.0%

**Analyst**

GT Le Page +61 8 6380 9200

**Share Price Performance**



## PepinNini Lithium Limited

### Salta Projects...potential development scenario

- The Salta Province Projects consist of over 20,840 Hectares consisting of 10 mining leases in the western part of the Salta Province of northwest Argentina. The mining leases, termed minas, are situated within five different dried salt lake environments (salares) in the high Puna region of Salta. We consider this area as prime lithium brine country.
- Stated JORC 2012 Resources currently exist at Rincon (60,000 tonnes of LCE in Measured and Indicated Resource with another 6,000 tonnes of Inferred) and Pular (91,000 tonnes LCE in Measured and a further 82,000 tonnes in Inferred). The next phase of work on these two projects involves pumping testing and potential pilot-scale production by mid-2020.
- The less advanced Incahuasi Project recently received formal granting of drill permits. A geophysical survey is currently underway to be followed by the likely drilling of up to three cored boreholes. This could potentially lead to the calculation of a maiden Resource for this project.
- At this early stage, we believe that PNN is scoping out the potential of commercialising the most advanced three projects (those mentioned above) and processing them through a centralised evaporation and concentration facility. This seems a sensible plan given that the distance between the three project areas is less than 100km.

### Lithium triangle a prolific, low cost province

- Nearly one half of the world's lithium production comes from lithium brines in the Andes mountain region encompassing Argentina and Chile (the Lithium triangle). The lithium triangle is host to some of the lowest cost lithium production centres in the world due to the benefits of economies of scale, simple extraction method and the relative lack of complexity in the concentration process. The major disadvantage of brine deposits is the significant lead time required to develop and ramp-up production as the natural evaporation method can take up to 18 months to concentrate the product to a commercial lithium content. We believe that PNN's projects have the potential to be in the lowest two quartiles on the cost curve.

### Lithium demand drivers still apparent

- China continues to lead the way in the sales of electric vehicles (EVs). Chinese EV sales lifted in October 2018 by 14% month-on-month, with all growth coming from battery-powered electric vehicles (BEVs) rather than plug-in hybrids (PHEVs). EV sales within China are forecast to comfortably exceed 1 million units in 2018. The central case of the world's largest mining company, BHP, is that around 235 million EVs will be on the road in 2035, constituting 14% of the light-duty vehicle fleet and 30% of annual sales. This forecast mainstream adoption of EVs in the single biggest driver of lithium demand and underpins double-digit CAGR for many years to come.

### Price Catalysts

- PNN has plans to continue to grow its Resource base in the Salta Province and to execute a strategy of commencing pilot-scale production by mid-2020. The challenge for the Company seems to be raising sufficient funds to implement this strategy in a timely fashion. Accordingly, if **PNN** is successful in completing a multi-million dollar fund raising whilst not over diluting its current shareholders, then we see this as a major catalyst. Additionally, exploration borehole results from the Incahuasi project and pumping testing and lithium quality results from the Rincon and Pular Projects could translate to value accretion over the next six months.

### Action and Recommendation

- **RMR** is initiating coverage with a Speculative Buy recommendation. Whilst we are conscious of the need for **PNN** to secure project financing so it can advance its lithium projects and the associated risk of major dilution, the market capitalisation of the Company looks low when considering the assets that it owns.

Significant holding of mining leases in the world's pre-eminent lithium brine district

...existing JORC Resources with potential to add more

Low market capitalisation points to high leverage to success

PepinNini Lithium is engaged in lithium exploration in Argentina and Ni-cu-Co exploration in the Musgrave (South Australia) ...

PNN listed in 2005 on the back of a suite of SA, WA and QLD exploration assets and gave initial investors a 425% ROI...

...focus is now on lithium projects in the Salta Province of Argentina

## INVESTMENT CASE

- **IMPRESSIVE PORTFOLIO OF LITHIUM ASSETS ACCUMULATED:** The Company has accumulated a significant wholly-owned portfolio of assets amounting to ten mining leases covering some 20,840 hectares. These leases are contained within the famous Lithium Triangle which hosts around 65% of global lithium resources.
- **EXISTING RESOURCES:** PNN has already completed initial drilling on the Pular and Rincon Projects, with both hosting JORC 2012 compliant Resources. These resources total some 239,000 tonnes of contained Lithium Carbonate equivalent (LCE), of which over 64% is in the Measured Category. Lithium grades are up to 313mg/L, which are acceptable by local industry standard.
- **STRONG FUNDAMENTALS BEHIND SURGING DEMAND FOR LITHIUM:** Whilst most market commentators acknowledge that the last several years of buoyant prevailing prices for lithium carbonate and hydroxide has led to a large wave of new supply entering the market, there is also an undoubted boom in product demand due to the growth in manufacturing capacity of Electric vehicles. History suggests that generally supply takes longer to reach nameplate capacity than the market expects and this normally translates to tighter market supply than forecast (eg; the current iron ore market)
- **LOW MARKET CAPITALISATION POINTS TO HIGH LEVERAGE TO SUCCESS:** PNN has a low market capitalisation considering its impressive project portfolio located in the pre-eminent region for the hosting of world-class lithium brine Resources. This means that the Company is highly leveraged to further exploration success and successful execution of its commercialisation strategy.

## COMPANY OVERVIEW

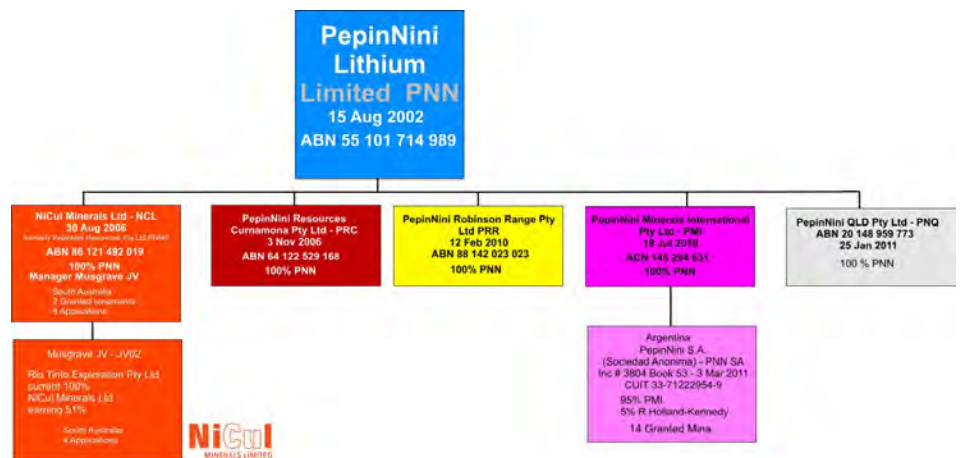


FIGURE 1: PepinNini Lithium Limited and its controlled entities. (source: PNN Annual Report, 2018).

PepinNini Lithium Limited (“PepinNini”, “PNN” or “the Company”) is a diversified exploration company focused on developing and discovering new mineral deposits. It was listed on the ASX on 15 April 2005 with a portfolio of exploration assets in the Musgrave Province of South Australia (SA) and Western Australia (WA), the Robinson Range area in the Gascoyne region of WA and the Georgetown Inlier in Northern Queensland.

In 2007, when the price of uranium rose to US\$130/lb, PNN sold 60% of a South Australian Uranium project to a Chinese SEO for \$40million and paid a 5c dividend to shareholders giving a ROI from IPO of 425%.

In April 2011, the Company established a presence in Argentina and has built a significant area of mining leases in the Salta Province of North West Argentina within the Lithium Triangle that encompasses the lithium-rich salares of Chile and Bolivia, as well as Argentina. PNN has built a strong exploration team with local experience.

Mineral Resources have been identified at two project areas—Rincon and Pular—with pump testing planned at both locations within the next few quarterly periods (pending securing the necessary funding). A third project area, Incahuasi, is drill-ready and fully permitted for exploration activities.

Conditions in the South American lithium triangle are ideal for the formation of lithium salts...

...the South American lithium triangle holds 65% of the worlds' known lithium resources

Nine bore holes totalling 2,417 metres have generated 153 samples

A number of bore holes are being used for ongoing monitoring of brines and for sampling

## EXPLORATION PORTFOLIO

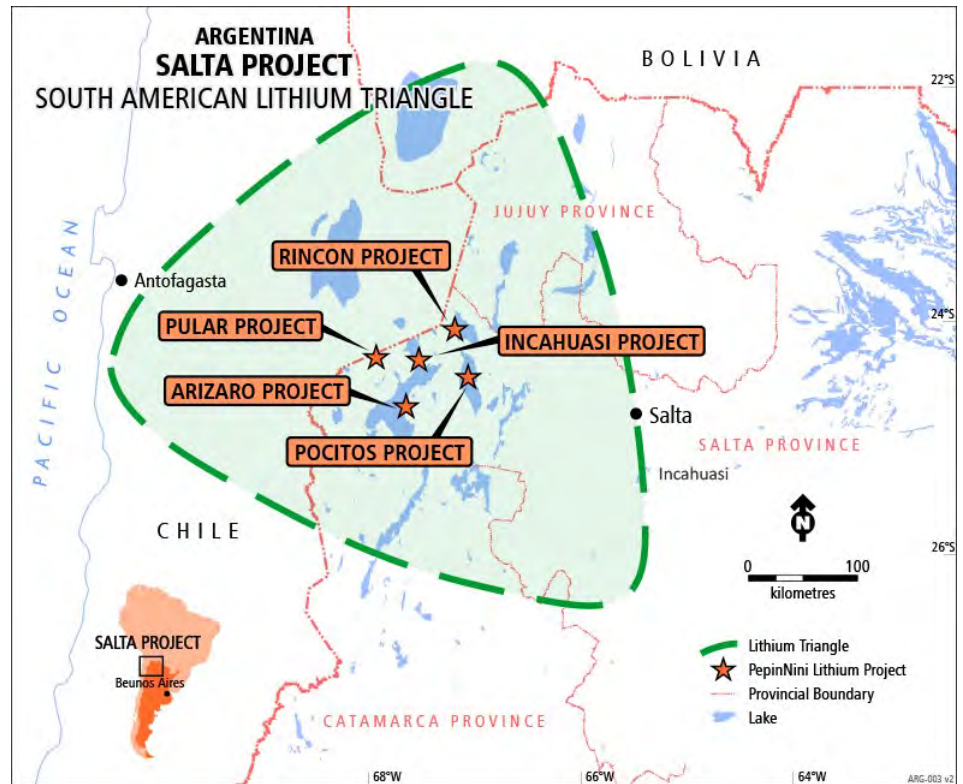


FIGURE 2: Salta Project and Lithium Triangle, Argentina. (source. PNN Annual Report, 2018).

### Argentine Lithium Projects (PepinNini SA: 100%)

#### Location and Access

PepinNini SA hold five projects (Figure 2) in Salta Province (Andes) within the South American Lithium triangle of Argentina, Bolivia and Chile. This elevated area is known for its high evaporation rates, low precipitation and geothermal activity making conditions ideal for the enrichment of lithium salt on the salares (dried salt lakes).

#### Exploration and Development History

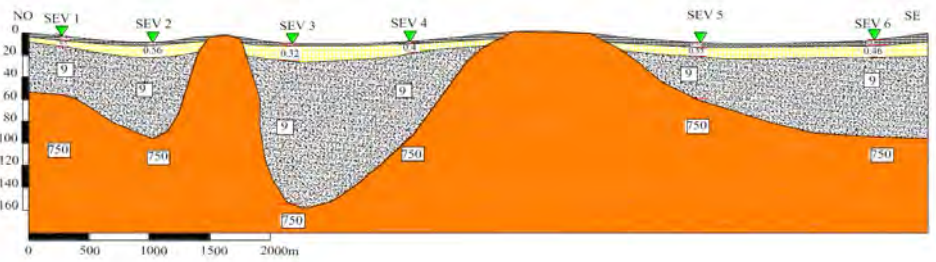
A number of lithium brine producers are situated in the Triangle on Atacama Salar in Chile, on Olaroz Salar and Salar del Hombre Muerto in Argentina. The evaporation of brine is a relatively low cost exercise in comparison with hard rock mining peers. In the last two years nine boreholes for 2,417 metres (generating 153 samples) were completed over four prospects, namely:

1. Salar de Pular
2. Salar Pocitos
3. Salar de Cauchari
4. Salar del Rincon

Drilling targeted potentially brine bearing aquifers defined with Vertical Electrical Soundings (VES) which measure the resistivity of the salar sediments. The least resistive layers indicating a conductive layer interpreted as an aquifer layer. Drilling was successful in intersecting a number of aquifers including near-surface fractured halite, and a lower black sand-hosted aquifer.

Figure 3 shows the current VES interpretation and aquifer thickness (60m) for the Rincon Project based on core investigations which employed 'double-packer' techniques to ensure accurate sample depths. A number of possible boreholes are being used for on-going brine monitoring and sampling. Results from both Rincon and Pular projects indicate good porosity values. Rincon values ranged from 2% to 30% and Pular from 2% to 25%.

Successive phases of drilling have increased aquifer thickness from 25 m to 160m on the Rincon Salar project



**FIGURE 3:** Cross section Rincon Salar Project indicating geophysical data points and aquifer thickness. (source. PNN Annual Report, 2018).

Resource Category	Brine Volume	Avg. Li (mg/L)	In Situ Li (Tonnes)	Li CO <sub>3</sub> Equiv (Tonnes) LCE	Avg. K (mg/L)	In Situ K (Tonnes)	KCl Equiv (Tonnes)
<b>Measured</b>	2.0 x 10 <sup>8</sup>	87	17,100	91,000	4,510	888,700	1,695,000
<b>Inferred</b>	2.0 x 10 <sup>8</sup>	77	21,200	82,000	4,280	853,000	1,627,000

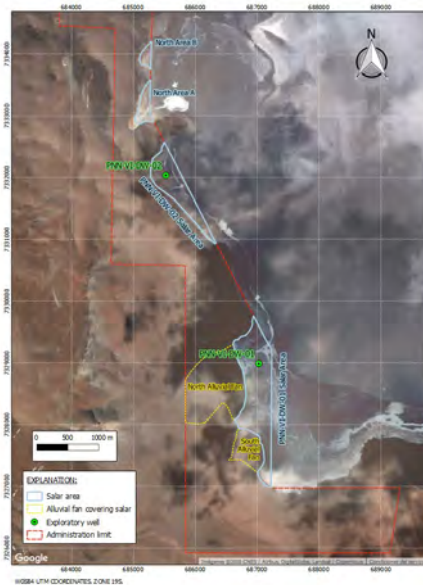
**FIGURE 4:** Resources & Reserves for Pular Brine Project. (source. PNN Annual Report, 2018).

Resource Category	Brine Volume	Avg. Li (mg/L)	In Situ Li (Tonnes)	Li CO <sub>3</sub> Equiv (Tonnes) LCE	Avg. K (mg/L)	In Situ K (Tonnes)	KCl Equiv (Tonnes)
<b>Measured</b>	2.7 x 10 <sup>7</sup>	252	7,000	36,000	6,040	161,000	307,000
<b>Indicated</b>	1.9 x 10 <sup>7</sup>	233	5,000	24,000	5,512	109,000	208,000
<b>M+I</b>	4.6 x 10 <sup>7</sup>	244	12,000	60,000	5,815	270,000	515,000
<b>Inferred</b>	3.7 x 10 <sup>6</sup>	288	1,000	6,000	7,001	26,000	49,000

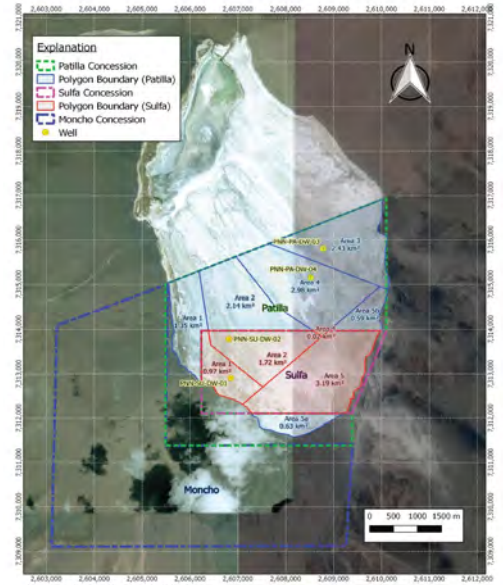
**FIGURE 5:** Resources & Reserves for Rincon Brine Project. (source. PNN Annual Report, 2018).

Lithium carbonate resources over two projects...

...151,000 tonnes Measured + Indicated and 88,000 tonnes Inferred Resources JORC 2012



**FIGURE 6:** Salar Del Rincon boreholes and resource polygons. (source. PNN Annual Report, 2018).



**FIGURE 7:** Salar De Pular boreholes and resource polygons. (source. PNN Annual Report, 2018).

Grades up to 313mg/L have been returned from drilling

## RESOURCES & RESERVES

Resources were calculated for both the Rincon and Pular Projects (Figures 4 & 5) in accordance with JORC Code 2012 and relied on drilling and sampling methods that yield depth-specific chemistry and effective (drainable) porosity measurements.

*Drilling permit granted with Resource drilling imminent*

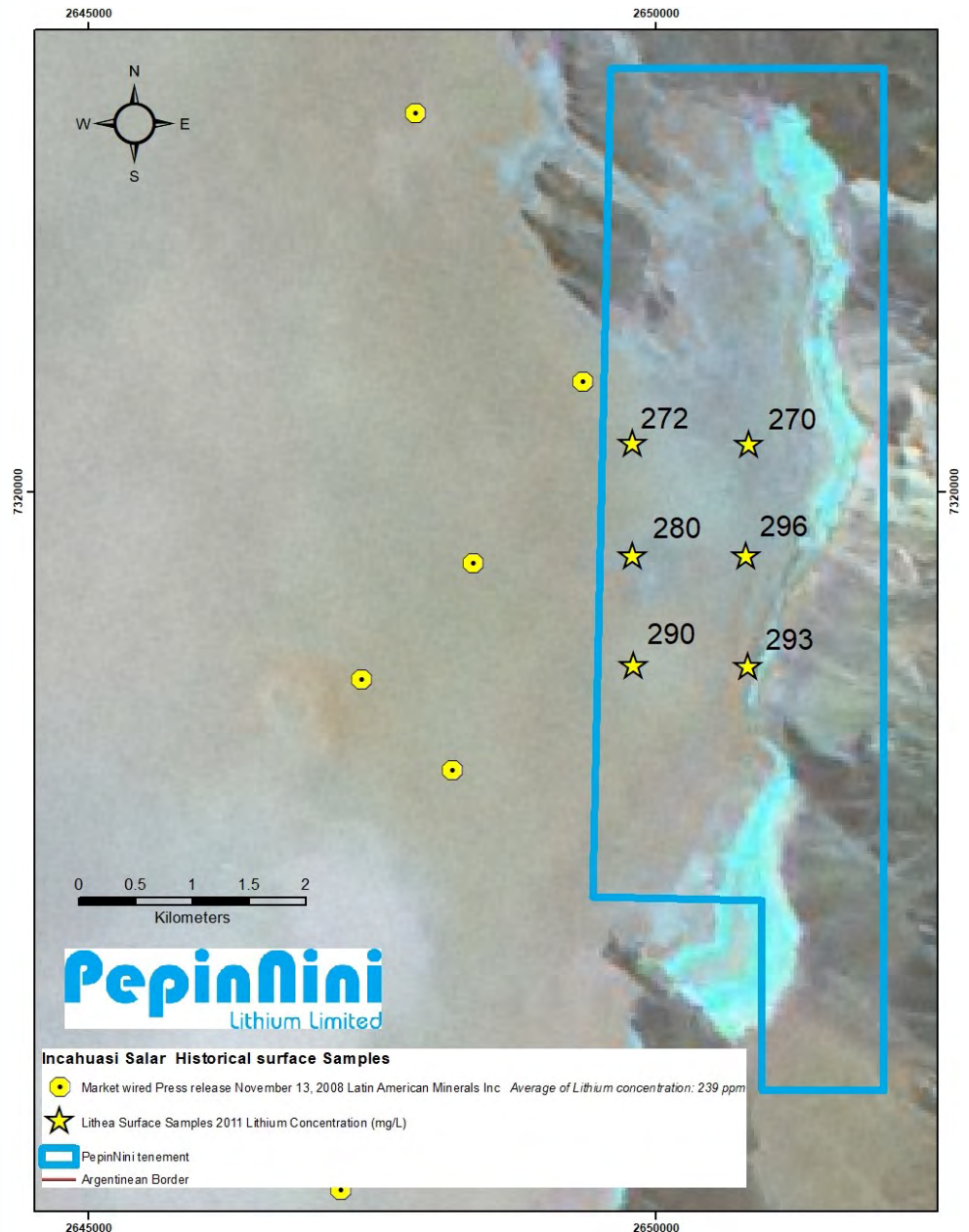
*Surface sample indicate viable lithium grades up to 296mg/L*

*Early indications are that the chemistry of Salar de Incahuasi is favourable for development*

### Proposed Exploration

Drilling is planned and approved by the Salta Mining Court for Mina Sisifo on Incahuasi Salar and in the (current) December 2018 quarter a TEM Geophysical survey is being undertaken with results expected before the end of the year. Transient Electromagnetic (TEM) method, is designed to provide information on the continuity of the brine across and along the salar, as well as at depth within the aquifers. Drilling would then be planned for Q1—2019.

Mina Sisifo was granted to **PNN** after a tenement swap with Lithium S Corporation (TSX-V: **LSC**). Data obtained from the previous holding entity, Lithea Inc, indicates surface Lithium grades up to 296mg/l (Figure 8) and chemistry showing elevated Calcium (tabulated below). This factor would reduce the lime (calcium carbonate) requirement for processing to LCE making the brine potentially attractive for processing add to this the low sulphate in the brine which make this project very attractive for development. There are only three holding companies in this Salar of which **PNN** is one. Average grades from surface samples Li 283 mg/l K 7,117 mg/l Mg 6,550 mg/l B 94 mg/l SO4 562 mg/l Ca 11,241 mg/l.



**FIGURE 8** Mina Sisifo, Salar de Incahuasi surface sample lithium results 2011 (source: **PNN** Annual Report, 2018)

## OTHER PROJECTS

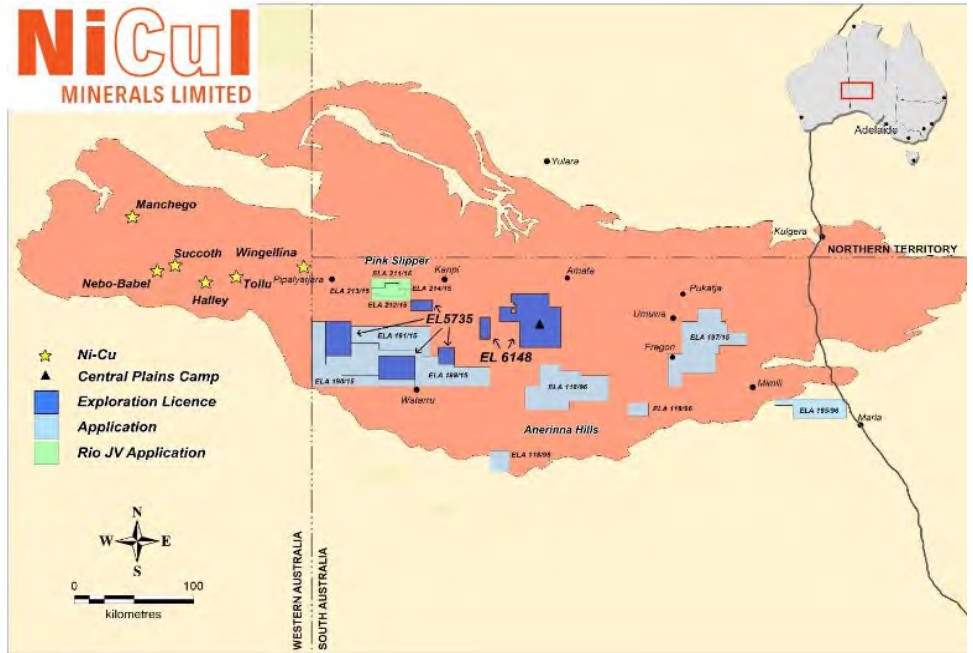


FIGURE 9 Musgrave Project NiCul Minerals Ltd (source: PNN Annual Report, 2018)

### Musgrave (PNN: NiCul Minerals Pty Ltd: 100%)

#### Location, Access and Tenements

PNN holds 100% interest in EL5735 and EL6148 and eight exploration licence applications (ELA118/96, ELA185/96, ELA367/09, ELA368/09, ELA189/15, ELA190/15, ELA191/15 and ELA197/15) covering approximately 14,003 sq. kms of the Musgrave Province (South Australia).

#### Geology, Mineralisation and Previous Exploration

The Musgrave province is a Proterozoic age sequence of layered mafic-ultramafic intrusions. There is evidence of sulphide bearing ultrabasic rocks and elevated levels of nickel, copper, platinum, palladium and gold. Pentlandite and chalcopentlandite mineralisation has also been recorded from reconnaissance sampling (West Mt Caroline, ELA 367/09). While there has been limited exploration activity, regional airborne magnetics-radiometrics, aerial photography, digital elevation and gravity have helped define targets for the exploration of Cu-Ni-Co mineralisation. The discovery in 2000 of the Nebo-Babel deposit (WA) by Western Mining Corporation (392Mt @ 0.3%Ni and 0.33%Cu) which is now held by **Cassini Resources Ltd** (ASX: CZI) in JV with **Oz Minerals Ltd** (ASX: OZL) is evidence of the potential of the Musgrave.

Musgrave tenements cover approximately 14,000 square kilometres

Previous RC & diamond drilling by PNN has confirmed the presence of magmatic Ni, Co and Cu...

Airborne EM surveys have highlighted a number of targets for follow up

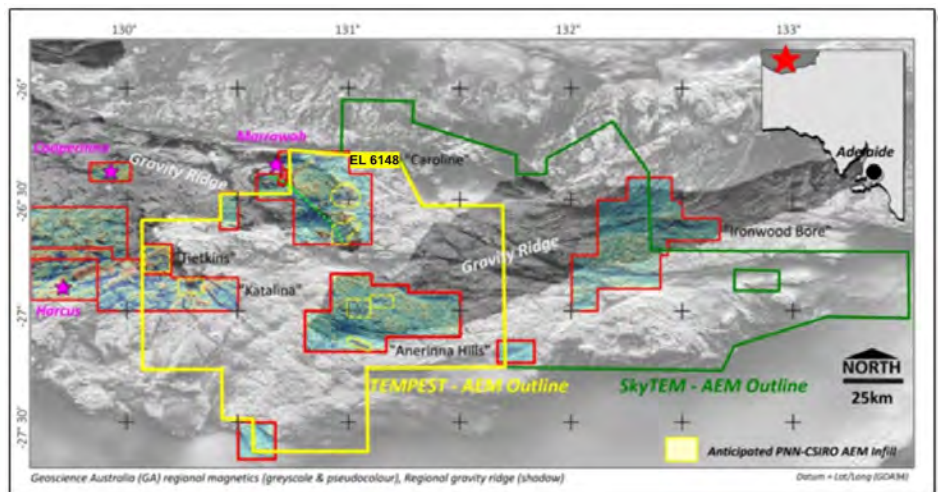


FIGURE 10 Musgrave Regional AEM survey (source PNN Annual Report, 2018)

The Pink Slipper farm-in covers over 600 square kilometres of prospective Proterozoic terrane...

...several high-priority geophysical targets have been identified

RC and diamond drilling of nickel copper sulphide targets at Marcus, Moulden, Cooperinna, Woodroffe, Marawah and Caroline Prospects by **PNN** has identified disseminated and semi-massive sulphides containing up to 0.7% Cu and 0.3% Ni within mafic lithologies. Regional AEM surveys collected 16,000km of broadly spaced data over 30,000 square kilometres of the central and eastern Musgrave Block, of which 20% was contained within **PNN's** tenements. To date, nearly 64% of **PNN's** Musgrave Project tenure has been covered by a combination of Tempest, HoistEM, V-TEM and SkyTEM surveys. Three priority structural targets have been identified, namely Fowler (EL6148) and Wintinginna Shear Zone and Ironwood Bore (EL2015/00197).

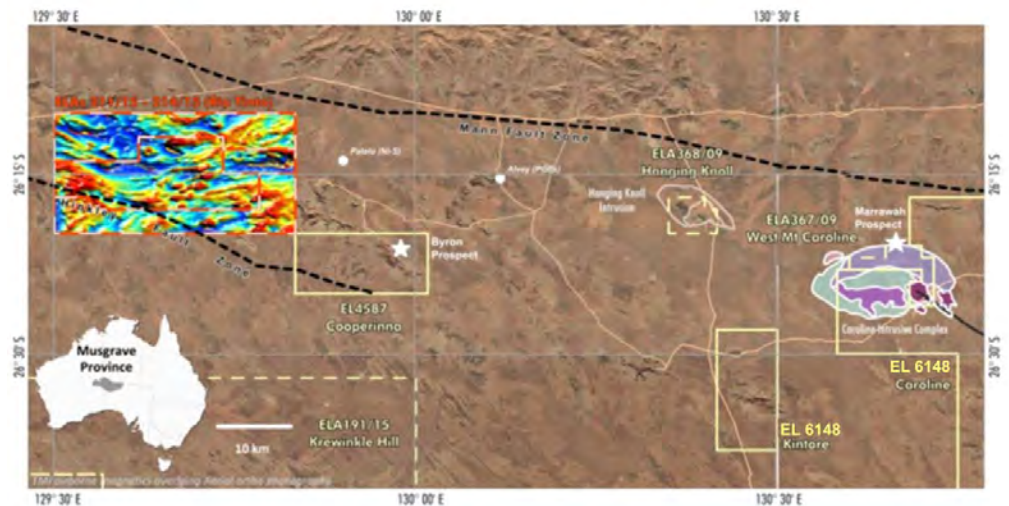


FIGURE 11: Pink Slipper JV with Rio Tinto (source: **PNN** Annual Report, 2018).

### Rio JV

NiCul is also earning a 51% interest in the Pink Slipper Target (Figure 11) that covers approximately 600 square kilometres over four ELA's. The **RIO** Farm-in Joint Venture commenced in June 2009, and was extended through to December 2015. This has now been extended with a restructured agreement to enable the ongoing partnership between the two companies

The four redesigned blocks (ELAs 211-214/15) are believed to accommodate land custodial and heritage issues that may enable land access negotiations with Traditional Owners to be overcome. Exploration is set to recommence when land access and Heritage Clearance Approvals have been dealt with.

## COMMODITY OUTLOOK

### Lithium

Adoption rates for electric vehicles (EV) have been moderated slightly due to regulation and supply/infrastructure constraints, with demand projected at a more conservative 16% CAGR to 2025. Overall spot  $\text{Li}_2\text{CO}_3$  prices are anticipated to fall further to US\$14k/t in 2019 and US\$12k/t in 2020.

Reducing demand growth and supply side pressures likely to see medium term reduction in lithium carbonate pricing but this reduction is already more than adequately factored into lithium equity valuations

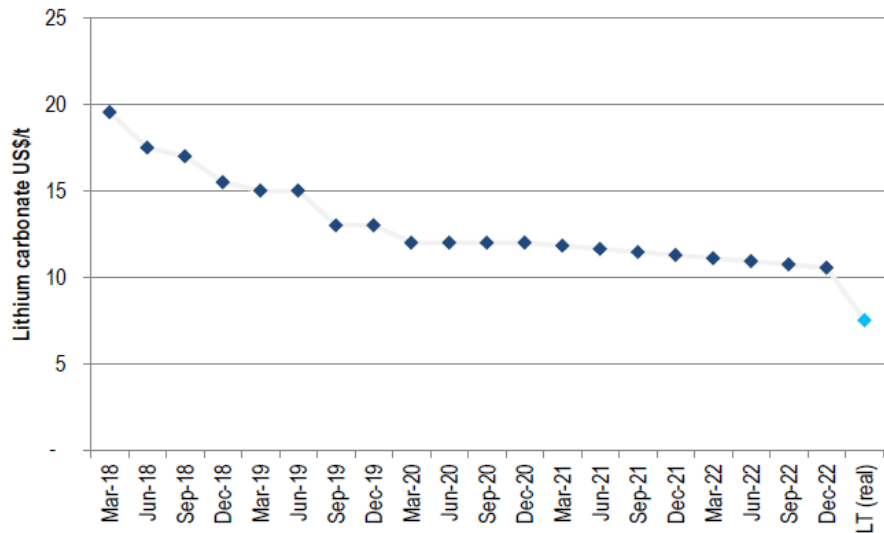


FIGURE 12: Lithium carbonate price outlook 2018 to 2022. (source: Citigroup, June 2018).

Demand expectations are extremely robust with many market commentators expecting EV sales to grow rapidly and reach general market acceptance by 2025/30.

**Supply Increasing:** Supply continues to build with two spodumene producers commissioning (AMG, Pilbara and Tawana), and one about to commission (Altura) and Mineral Resources' Wodgina shipping >200kt of DSO/mth ahead of 3 x 250ktpa SC6 plants being built by late CY2019. These projects and growth from existing producers have the potential to dampen the strong demand growth if not constrained by producer discipline and/

Projects expected to commission in 2018 (LCE t)		2018	2019	2020	2021	2022	2023	2024	2025
Pilbara Minerals	Pilgangoora	9,108	35,863	55,218	105,426	121,137	121,137	121,137	121,137
Altura Mining	Pilgangoora	10,000	25,000	32,500	32,500	32,500	32,500	32,500	32,500
Tawana Resources/ AMA	Bald Hill	10,000	17,806	23,000	23,000	23,000	23,000	23,000	23,000
Mineral Resources	Wodgina	-	24,483	74,561	94,592	94,592	94,592	94,592	94,592
AMG	Mibra	3,172	13,354	26,708	26,708	26,708	26,708	26,708	26,708
Dongtai Resources	China	1,000	2,500	4,000	4,000	4,000	4,000	4,000	4,000
Qinghai Hengxinrong	China	1,000	2,500	4,000	4,000	4,000	4,000	4,000	4,000
Minmetals	China	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>Total (Weighted)</b>		<b>27,824</b>	<b>98,004</b>	<b>176,789</b>	<b>232,981</b>	<b>245,550</b>	<b>245,550</b>	<b>245,550</b>	<b>245,550</b>
Projects Advance Development (LCE t)		2018	2019	2020	2021	2022	2023	2024	2025
Lithium Americas / SQM	Cauchari-Olaroz Project	-	-	4,000	8,000	16,500	20,500	25,000	25,000
Argosy Minerals	Rincon	250	500	750	1,000	1,250	1,500	1,500	1,500
Prospect Resources	Arcadia	-	1,000	12,000	26,000	26,000	26,000	26,000	26,000
Nemaska Lithium	Whabouchi	-	-	10,461	20,922	31,700	31,700	31,700	31,700
NA Lithium (CATL)	La Corne	10,000	15,000	20,000	23,000	23,000	23,000	23,000	23,000
<b>Project Total (Non weighted)</b>		<b>10,250</b>	<b>16,500</b>	<b>47,211</b>	<b>78,922</b>	<b>98,450</b>	<b>102,700</b>	<b>107,200</b>	<b>107,200</b>
<b>Project Total (Weighted)</b>		<b>5,125</b>	<b>8,250</b>	<b>23,806</b>	<b>39,461</b>	<b>49,225</b>	<b>51,350</b>	<b>53,600</b>	<b>53,600</b>

Source: Citi Research Estimates, Company reports

FIGURE 13: Advanced Lithium projects. (source: Citigroup, 11 June 2018).

or conversion capacity - 24% CAGR unrisks supply growth to 2025.



Supply from existing producers is likely to meet near term demand projections...

...supply growth is forecast at around 18% p.a.

China is considering legislation to reduce NEV subsidies...

...this will weigh on profitability of supply chain

**Conversion Capacity Looks Constrained** — Conversion capacity is currently ~200kt, but is expected to expand to ~400kt by 2020, however there remains a significant difference between production and capacity and with overall utilization at ~50% and Chinese Tier 2 producers at ~33%. With the ramp-up of ex-China conversion capacity, utilization rates are expected to increase. Even at 70% this constrains hard rock supply to ~280kt vs potential mine supply of ~400kt by 2020.

**Market Share vs Price** — Unrisked supply from existing producers has the potential to meet near-term demand forecasts, so the question is how much market share will they be prepared to cede to new entrants against defending price.

Given the low incentive price to add additional output for producers like SQM of ~US\$3,600/t due to latent capacity. Supply growth is projected at around 18%pa that sees a surplus build over the next few years, but the market begins to tighten by mid next decade as EV adoption rates gain momentum. We maintain our long-term price of US\$7.5k/t for industrial Li<sub>2</sub>CO<sub>3</sub> (US\$9k/t for battery grade & US\$9.4k for hydroxide) based on incentive price for brine and/or SC6/hydroxide capacity.

**Quality Premium** — There has been a big divergence in price performance this year with

Summary		2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Industrial application	LCE kt	116	120	125	130	135	140	146	152	158	164
		3.5%	3.5%	3.9%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Consumer Electronics	LCE kt	46	48	49	51	53	55	58	60	62	65
		6.6%	3.0%	3.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Battery Storage	LCE kt	2	3	4	6	8	11	15	21	30	42
		35%	30%	25%	40%	40%	40%	40%	40%	40%	40%
Automotive	LCE kt	46	56	89	130	176	227	269	336	405	480
		40%	30%	59%	46%	36%	29%	18%	25%	20%	19%
Total	LCE kt	211	226	267	316	372	433	487	569	655	751
		10%	9%	18%	19%	18%	16%	12%	17%	15%	15%

Source: Citi Research Estimates, Roskill, Company reports

**FIGURE 14:** Lithium demand-supply summary (source: Citigroup, June 2018).

hydroxide holding despite the fall in industrial grade. We expect ~80% of the incremental lithium demand emanating from EV batteries that supports hydroxide producers and could drive more divergent premiums for product quality than we have seen recently, which would favour the incumbent producers.

**Demand** Lithium demand projections take into consideration electric vehicle penetration rates though to 2025. Overall strong automotive battery demand growth is anticipated, but the pace has moderated from a 36% CAGR over next eight years to a 31% CAGR.

**2019 subsidy cut to favour the big players.** If adopted, the policy will see NEV subsidies reduced by raising the battery energy density threshold from 120Wh/kg in 2018 to 140Wh/kg in 2019. We expect the subsidy cut to weigh on the profitability of the whole NEV supply chain and our expectation is that this will continue to squeeze out smaller battery makers.

## CORPORATE

The Company recently placed (23/10/2018) 17.8 million Shares to Sophisticated Investors pursuant to s708 Corporations Act 2001 at \$0.006 each to raise \$107,000 (before expenses).

## KEY RISKS

**POLITICAL RISK:** While investment in Argentine mining exploration rose to \$300 million in 2017, up from \$148 million in 2016, there remains a lack of clarity on environmental rules, overlapping federal and local taxes, and regulations that vary from province to province continue to loom over proposed mines. This may provide uncertainty for **PNN** as it seeks to move into development.

**PERMITTING/APPROVALS/LICENSING:** Permitting and licensing in Western Australia is relatively low risk. In Argentina **PNN** is still in the exploration phase and requires drilling permits which we also consider low risk, given the region is mining friendly with multiple ongoing exploration and development programs. There may be risks however associated with permitting and/or licensing as these projects move into the development phase.

**COMMODITY PRICE OUTLOOK:** **PNN** is primarily exposed to prices for lithium carbonate. Our analysis reveals there is likely to be supply side pressure in the medium term that could adversely affect the project economics of their Salta Projects, and hence the value of the **PNN** securities.

**METALLURGY/PROCESS RISK:** There could be risks associated with the processing of brines that could adversely affect **PNN**'s lithium projects in Argentina.

**FINANCE RISK:** CY 2018 has seen an aggressive sell down in risk assets which has made raising funds for explorers/developers challenging. **PNN**'s exploration commitments together with their current cash position does pose a significant risk for the Company.

## DIRECTORS

**Ms Rebecca Holland-Kennedy**, B.A., B.Sc. MAusIMM, GAICD

**CHAIRMAN & MD**

Rebecca was a founding director of **PNN** and has been a board member since 2002. She has over 30 years experience in exploration and administration and has held positions with Robertson Research, Macquarie and Sydney Universities, NSW Dept. of Mines & Energy and NSW Electricity. She is a director of **NiCul Minerals Ltd**, **PepinNini Robinson Range P/L**, **PepinNini Resources Queensland P/L**, **PepinNini Minerals International P/L** and **PepinNini Resources Curnamona P/L**.

*Rebecca is a geologist with over 30 years experience in mineral exploration...*

**Mr Phil Clifford**, B.Sc., MAusIMM

**NON-EXECUTIVE DIRECTOR**

Phil has been a Non-Executive Director with the company since 2017. Prior to this he was Technical Director from 2013 and Exploration Manager for **PNN** since 2004 in charge of the South Australian Musgrave and Curnamona Projects and the Company's West Australian iron ore JV (Robinson Range). Before joining **PNN** he was a geologist with **CRA Exploration** and **Rio Tinto Exploration** for 15 years exploring for nickel sulphide, PGE's, gold, diamonds, base metals, uranium and coal. He is a director of **NiCul Minerals Ltd**, **PepinNini Robinson Range P/L** and **PepinNini Resources Queensland P/L**.

*Mr Clifford's experience includes stints for with CRA and RIO*

**Ms Sarah Clifton-Brown** B.A. (Acct), FCAA, GAICD

**FINANCE DIRECTOR**

Ms Clifton-Brown is a Fellow of the Association of Chartered Certified Accountants and has worked with the Company since May 2013. She has considerable experience and expertise in financial reporting, compliance and company management in Australia and the UK. She is a director of **NiCul Minerals Ltd**, **PepinNini Resources Curnamona P/L** and **PepinNini Minerals International P/L**.

*Justin was the former listing manager for ASX in Adelaide*

**Mr Justin Nelson**, B.A. (Jurisprudence), L.L.B.

**COMPANY SECRETARY**

Justin is a lawyer with DMAW Lawyers (Adel) and was previously the **ASX** State Manager and Manager Listings (Adel). He has extensive knowledge of ASX listing rules with an emphasis on resource and energy companies. He is also the Company Secretary of three other ASX listed companies and Company Secretary of **NiCul Minerals Ltd**, **PepinNini Robinson Range P/L**, **PepinNini Resources Queensland P/L**, **PepinNini Resources Curnamona P/L** and **PepinNini Minerals International**.

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<b>Speculative Buy</b>	We forecast strong earnings growth or value creation that may achieve a return well above that of the broader market. These companies also carry a higher than normal level of risk.
<b>Hold</b>	A sound well managed company that may achieve market performance or less, perhaps due to an overvalued share price, broader sector issues, or internal challenges.
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