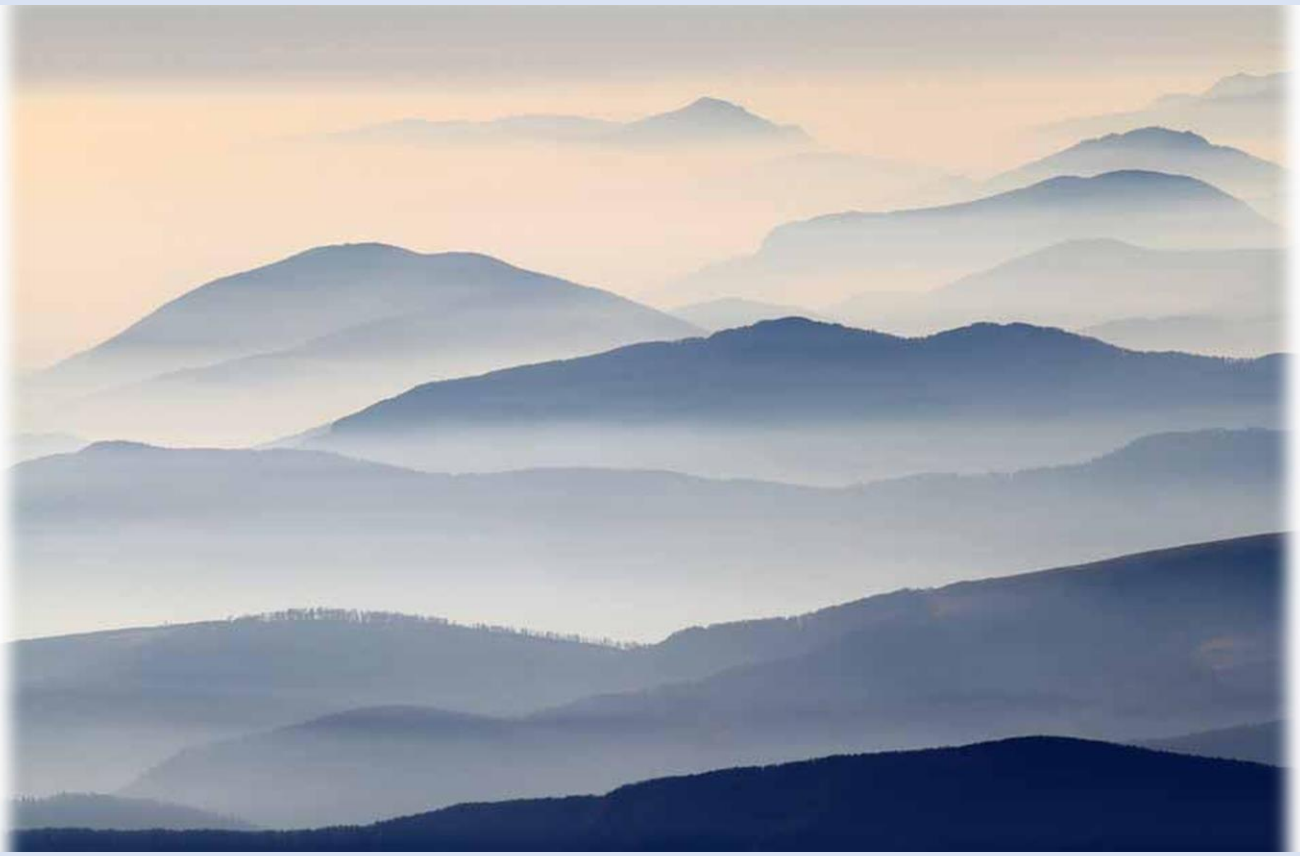
PIEDMONT LITHIUM



Independent company research and estimated fair value

Rodney Hooper

9 September 2019

Table of Contents

Introduction

Piedmont Lithium Limited ("Piedmont") is the full owner of the Piedmont lithium project, located in the Tin Spodumene Belt ("TSB") about 40 kilometres outside Charlotte in North Carolina ("NC"), USA. North Carolina was previously responsible for producing the majority of the world's lithium between 1950 and 1980. As both Albemarle Corporation ("ALB") and FMC Corp, now Livent, saw their mines mature, production was shifted from hard rock in North Carolina to brines in South America. Unlike ALB and Livent, **Piedmont decided to painstakingly accumulate its TSB land package by optioning small parcels from 70+ landowners. It continues to execute this strategy and build a meaningful resource.**

Vertically integrated hard rock / chemical projects generate substantially higher operating margins and EBITDA numbers than either independent miners selling spodumene concentrate 6% ("SC6.0") to chemical converters in China (for example Altura and Pilbara) or independent converters sourcing SC6.0 at market prices from (mostly) Australian miners (for example Ganfeng).

As of today, there is very limited chemical conversion of hard rock SC6.0 outside of China, but there are lithium hydroxide projects either under construction or in the permitting and feasibility stages in Western Australia. **Given that both Livent and ALB have operations in North Carolina and are familiar with the cost of local infrastructure, labour, equipment etc, understand the permitting process and have historical experience (and data) on chemical conversion of local spodumene concentrate, they are both logical choices to partner with Piedmont**. **Could ALB utilize Piedmont's infrastructure to process spodumene from a re-opened King's Mountain mine?**

The estimated capital cost of installed capacity at the Kemerton hydroxide plant has increased to $24,000/t. Our estimates are more conservative than Piedmont's and suggest ~$17,600/t. **Whilst Piedmont will have an installed capacity of 22,700tpa (which is below both Kemerton (50,000tpa) and what was Wodgina's projected 100,000tpa (ALB 50%)), we believe the potentially lower opex, capex, strategic location and likely final mine life (30 years +) will more than compensate for the lower initial production capacity**. The main risk to Piedmont is whether lower capex new Chinese converters, which are able to construct hydroxide and carbonate conversion plants for between US$2,700 and US$6,000/t,

will be able to produce OEM qualified chemicals in the future. Currently, the ability to achieve higher specification output is largely the preserve of the established incumbents. Non-integrated converters in China will continue to face minimum opex costs of ~$7-$8k/t (excluding VAT on the sales price) and will see rising input costs as chemical spot prices rise and therefore are not the main threat. The greater threat will potentially come from Western Australian (and other) SC6 producers forming JV agreements where both parties provide their inputs at cost. Under this arrangement opex costs will be closer to $5.5-$6k/t (excluding VAT) and coupled with a low capex intensity could reduce long-term price forecasts substantially if they become the **marginal cost producer of battery quality chemicals**.

Real demand growth is for battery quality material, in particular OEM qualified. OEM battery warranties will apply globally, including their China EV sales. **Based on the historic and current reality that the supply and qualification of high specification chemicals isn't growing as quickly as total lithium supply, we are of the opinion that only a limited number of producers, mostly existing incumbents, will continue to achieve OEM qualification status. Furthermore, newcomers will struggle technically. OEMs are increasing assessing the carbon footprint of suppliers and proximity to cathode/battery plant and will also consider the potential risks of Chinese export bans, counterparty credit/financial stability and whether a Chinese supplier will renege on a long-term contract if Chinese spot prices rally and trade at a substantial premium**. Even if they don't renege, they are likely to deliver in the absolute minimum tonnage per the contract when material is needed most.

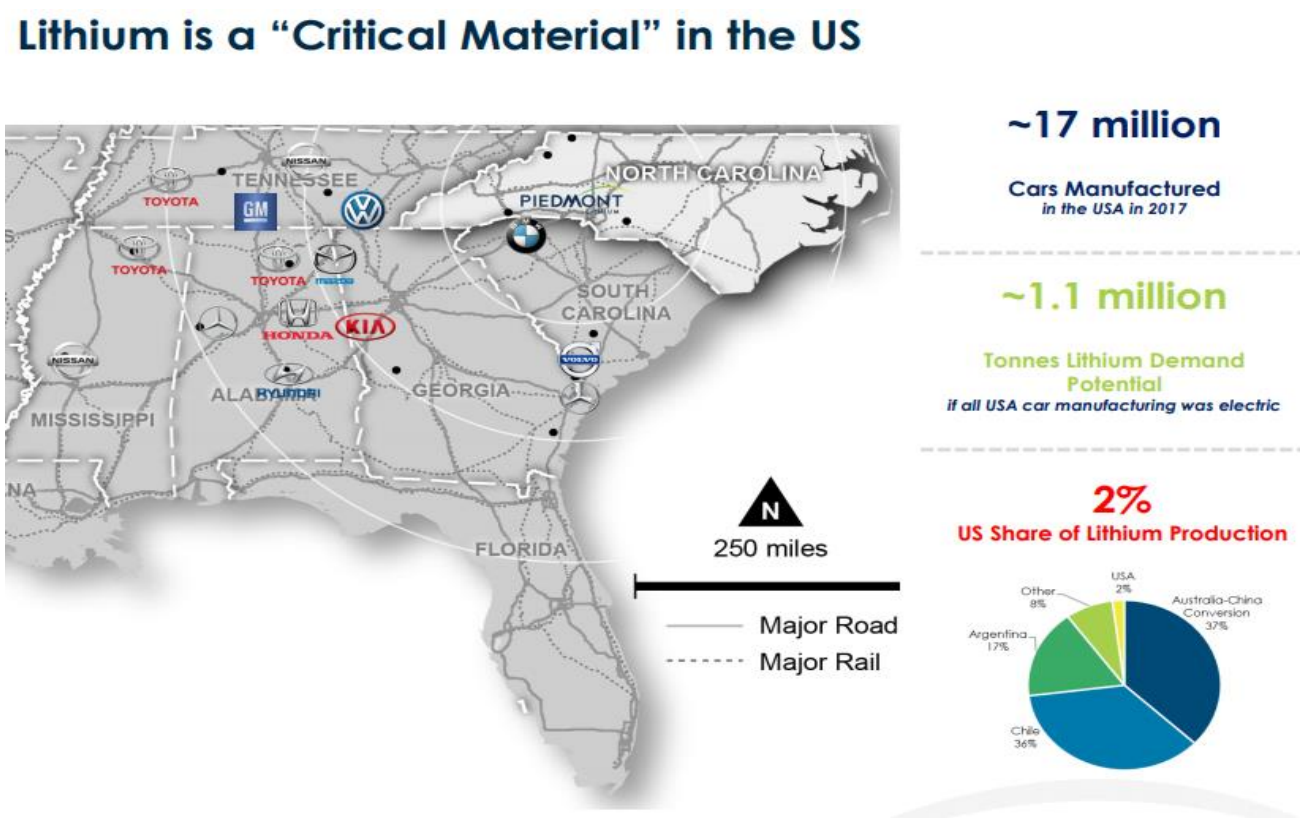


Figure 1: Piedmont proximity to US auto companies (Piedmont Company Reports)

Piedmont will need to secure an incumbent or a deep pocketed new entrant as a partner. As the project has a near surface hard rock deposit growing to a 40-50MT resource, offers vertical integration, is located near "auto alley" in the US (2nd largest global auto market) and should achieve a low opex position on the cost curve, **potential partners should emerge** as Piedmont completes key milestones in 2019 and early 2020. On a comparable basis relative to its Australian peers Wodgina and Kidman, even using conservative assumptions, Piedmont offers compelling economic returns to a strategic investor.

The following sections provide an analysis and discussion of both advantages, as well as risks and issues, in this regard.

Key Advantages

1. **Location**: The Piedmont Project is optimally located in North Carolina, a state which holds the No. 1 Forbes State ranking for business and is associated with a history of over sixty years in lithium mining and production.

2. **Strategic value**: The United States is the second-largest auto market and there are no other conventional lithium projects in the country. Furthermore, Piedmont is ideally located near the auto companies.

3. **Infrastructure and skilled labour**: Rail, freeways, electricity and ports are all within an ideal proximity to the project as well as ALB and Livent, two firms known as incumbent lithium producers. This location of firms facilitates the presence of a skilled labour force.

4. **Low tax rates, royalties** and generous **depletion allowance**: North Carolina has a 0% royalty rate and federal taxes are 21%. Furthermore, Piedmont can utilize a 22% depletion allowance for lithium.

5. **By-product credits:** There is high potential to earn by-product credits through the production of quartz, feldspar and mica.
6. **Conventional hard rock / integrated chemical projects**: The area was the centre of lithium mining between 1950 and the 80's and, as such, is home to extensive existing infrastructure.

Key Risks and Issues

1. **High Strip Ratio:** Given the thin swarms of pegmatite dikes contained in the Core property, the scoping study outlined a 10.4:1 strip ratio. This will render the tasks of minimizing the mining dilution and maximizing recoveries more complicated. However, the recent discovery of a thicker and higher grading dike inside the Central property is encouraging.

2. **Project capex to market capitalization ratio:** The company is pursuing a sensible two-stage approach through initially developing a concentrator followed by a chemical plant. The models assume **an US$84m equity raise for Stage 1 and a US $117m raise for Stage 2**. The current market capitalization of Piedmont is ~US $52m.

3. **Lower long-term lithium price assumptions and longer qualification periods:** The financial models below assume a **long-term battery grade hydroxide price (US) of $13,000/t.** Further, it is assumed that Piedmont will take 2 years or more to qualify its product with OEMs.

Fair Value Estimate

For preparation of this report, I have reviewed in detail Piedmont's updated Scoping Study and updated metallurgical test work results released since April 2019.

I have built my own financial model using more conservative assumptions regarding capex and operating costs and conclude that Piedmont could potentially earn a **steady state EBITDA of US$141m** following the successful construction and ramp of an integrated project including a mine, concentrator and chemical plant (producing hydroxide).

Based on the current lithium equity market conditions, I have also used certain conservative debt, prepayment and equity issuance assumptions and arrived at an **estimated fair value of Piedmont in June 2025 of A$0.66 (upside scenario A$0.76) should the chemical plant strategy be achieved on a stand-alone basis, which would represent ~5x uplift over 6 years or 32%+ IRRs over this time period**. **The reduction in my fair value estimate since April 2019 is largely due to the lowering of my long-term lithium price forecast.**

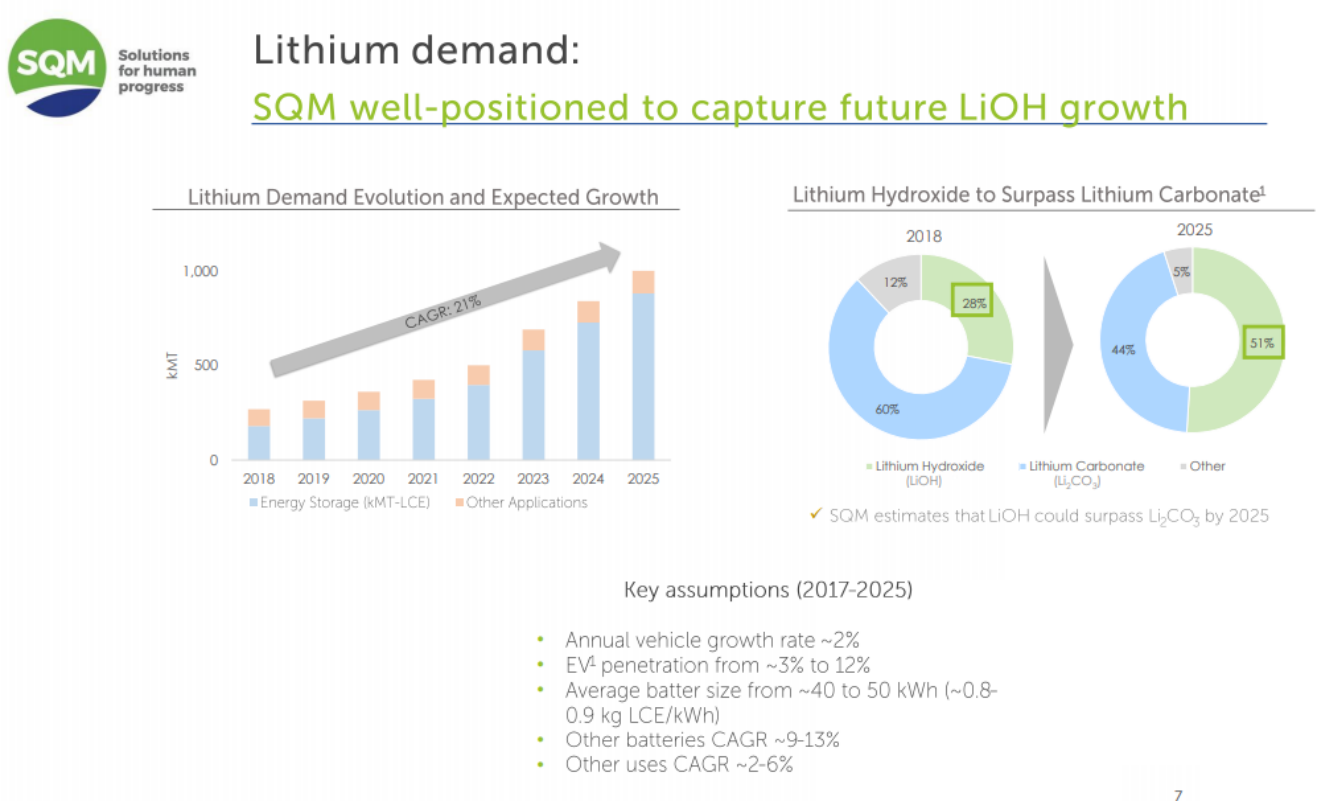


Figure 2: Graphical depiction of Lithium demand patterns due to energy storage. (SQM Company Reports)

The Case for Lithium - chemical Supply / Demand Fundamentals

With annual future growth estimated by all the "big 4" lithium producers at 21% p.a. to 2025, the expected annual demand will be 1M MT with a potential upward bias as all forms of transport convert to lithium-ion batteries. Future growth is largely driven by **absolute EV sales** and the **increase in average battery size** in EV's.

In reference to Figure 2, which depicts **SQM's** demand forecast graph, a predicted **step change in demand from 2023** is evident. This ties in with Bloomberg NEF's forecast of average battery pack prices falling below US $100/kWh in **2024 (US $94/kWh).** US $100/kWh is considered the inflection point at which EV's will not only be cheaper from a running cost perspective but also from that of sale prices. Cheaper battery prices will be driven by production volume growth at battery "megafactories". Bloomberg NEF research estimates the "learning curve" at 18% for every doubling of capacity. Following the announced implementation of EU CO2 emission standards and penalties starting 2021, OEMs have announced the

release of a significant number of EV models. In Europe, by 2021 there are 214 EV models planned versus 60 existing models in 2018.

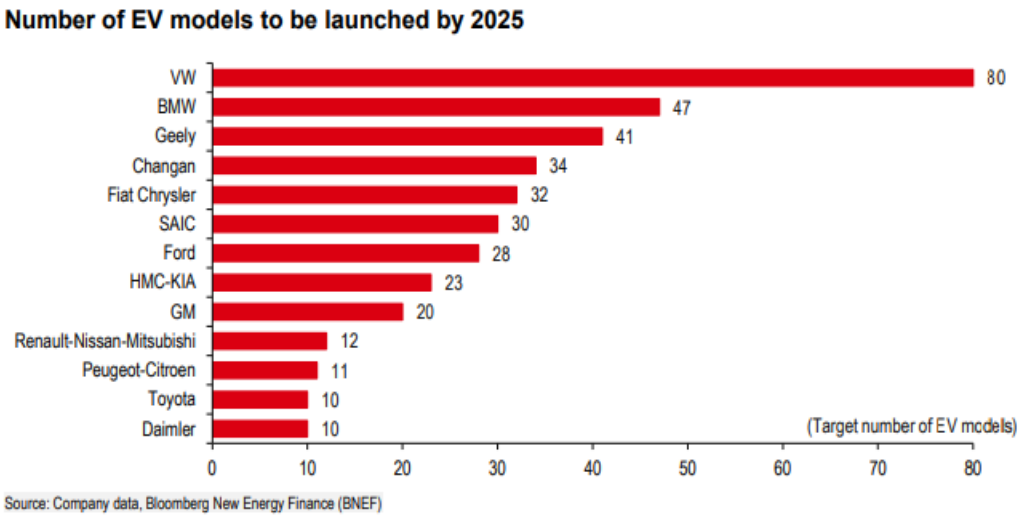


Figure 3: Target EV model releases from major OEMs (BNEF)

The scale of the penalties payable by EU OEMs is greater than the cost of switching to EV production.

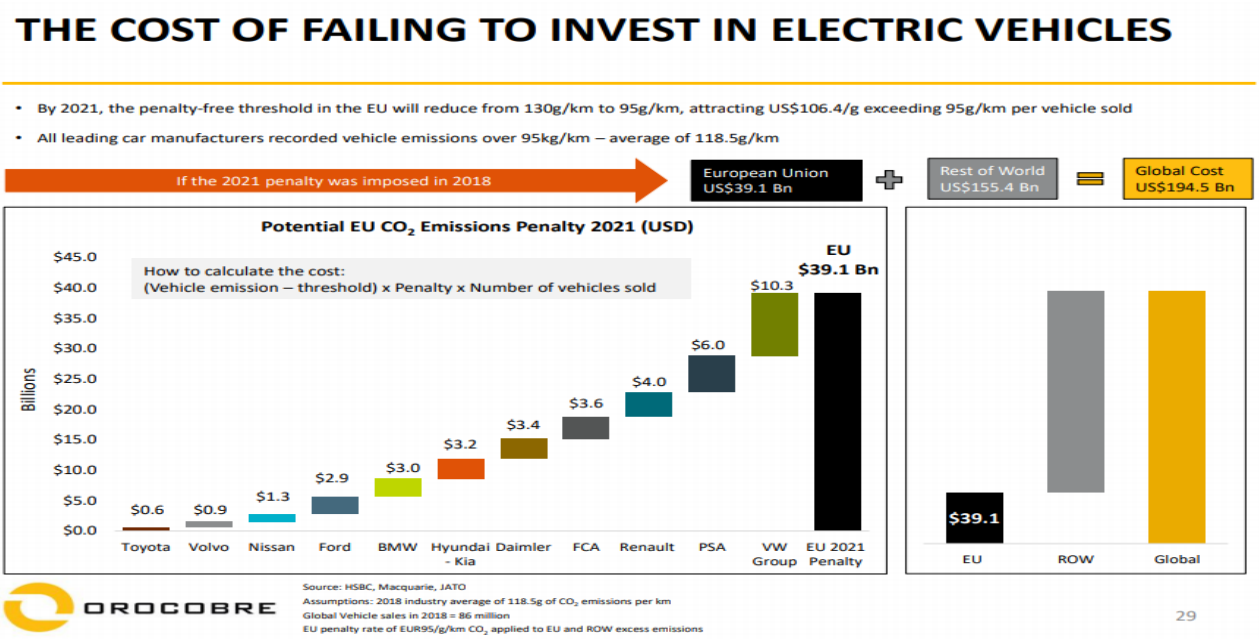


Figure 4: Potential EU OEM penalties based on 2018 CO2 emissions (Orocobre Reports)

Given the strategic importance of auto manufacturing in Europe, there has been a co-ordinated drive by both governments (subsidies for EV purchases and battery plant finance, EU CO2 emission penalties) and OEMs. It's estimated that battery cell capacity in Europe will grow 10 times in the next 5 years to ~200 GWh. VW alone has stated that it will need 150 GWh of supply in Europe and a further 150 GWh in the

rest of the world. **As the major EV markets, China and Europe, develop their battery supply chains to ensure future security, the result will be a limited remaining supply of Tier 1 batteries available for US OEMs (excluding Tesla)**. A substantially increased penetration in EV sales in the United States auto market and a commensurate increase in investments announcement by SK Innovation (a battery plant in Georgia) and further cathode / battery cell and pack producers would enhance the value of Piedmont, given its location and planned chemical output of battery grade hydroxide from a conventional hard rock project. For the immediate future, the United States lags China and soon Europe in developing an integrated EV supply chain.

Lithium Chemicals Supply Projects

Project Name	Project Type	Ore supply Classification	Chemical plant Classification	Chemical Type	Volume growth Target
SQM Atacama	Brine		Brownfield	Carb / Hydrox	100K MT +
ALB Le Negra	Brine		Brownfield	Carbonate	40K MT
ALB Xinyu	Hard Rock	Brownfield	Brownfield	Hydroxide	20K MT
ALB Kemerton	Hard Rock	Brownfield	Greenfield	Hydroxide	80K - 100K MT
Wodgina JV	Hard Rock	Greenfield	Greenfield	Hydroxide	100K MT
Tianqi	Hard Rock	Brownfield	Greenfield	Hydroxide	48K MT
KDR / SQM	Hard Rock	Greenfield	Greenfield	Hydroxide	45K MT
Livent	Brine		Brownfield	Hydroxide	40K MT
LAC / Ganfeng	Brine		Greenfield	Carbonate	25K MT
Orocobre	Brine		Brown / Green	Carb / Hydrox	25K MT
				TOTAL	523-543K MT

Greenfield	303K MT	Hydroxide
Greenfield	25K MT	Carbonate

Figure 5: Planned new lithium projects (Author, Company Reports)

Recently, ALB announced an indefinite "postponement" of 125 KT of annual hydroxide production (175 KT including Mineral Resources 50% share in Wodgina). Given that ALB's estimated capex is $24,000/t at Kemerton and that the Wodgina project is located in a more remote location of Western Australia, there is a high likelihood that the capex for Wodgina would have matched or exceeded Kemerton. Based on the estimated all-in cost of ALB's original JV stake, analysis suggested that a $14,000/t hydroxide price was needed for ALB to achieve an IRR of 17%. Increasing capex per ton at Wodgina to $24,000/t, up from $16,000/t previously and assuming a lower long-term hydroxide price meant ALB would likely only achieve a single digit IRR.

As many other proposed lithium projects globally have similar capex/opex assumptions we can expect delays from these greenfield projects. **The only brownfield project expansions that make economic sense in a lower lithium price environment (<$10k/t) are SQM (Atacama) and ALB/Tianqi in China using Greenbushes SC6**. These projects alone will not be able to meet fast growing battery grade demand from the energy storage sector. **In order to adequately incentivize chemical production (ex-China) that meets OEM qualification standards, lithium prices will need to ensure that IRR's of 18%-20%+, using realistic capex/opex assumptions, are achievable**.

RK Equity Long -term Lithium Price Deck

Lithium Grade	Long-Term Price (US$)	Note
Non battery grade Li2CO3 exw China	$8,500/t	
Battery grade Li2CO3 exw China	$10,500/t	Conversion cost plus margin (~$2,000/t)
Battery grade LiOH exw China	$11,000/t	Above $11,000/t excess margins (>15%-20%) for converters will incentivize additional production to come online
Battery grade Li2CO3 US/EU/JP/SK	$12,500/t	+$2,000/t premium for a) geographic diversity and security of supply (ex-China) b) sustainability (lower carbon footprint) c) OEM qualified (higher spec)
Battery grade LiOH US/EU/JP/SK	$13,000/t	As above plus a $500/t premium over Li2CO3 due to increased demand for LiOH and reduced supply (ALB etc)

Source: RK equity estimates

The recent rise in Chinese chemical conversion capacity post the 2016/2017 lithium price rally suggests that **additional capacity will come online if operating margins of greater than 15%-20%+ are achievable**. Especially if SC6 feedstock is readily available from Australia. As SC6 producers are currently throttling back production (with further expansion plans available) and Chinese conversion capacity utilizing 60%-65% of SC6 supply, we believe SC6 will be well supplied for years to come.

Supply is SC6.0 produced and shipped

Company	Project	2018	2019	2020	2021	2022	2023	2024	2025
Tianqi / ALB	Greenbushes	616 000	760 000	760 000	1 000 000	1 200 000	1 400 000	1 500 000	1 500 000
Min Res / Albemarle	Wodgina	0	75 000	150 000	250 000	350 000	500 000	500 000	500 000
SQM / Kidman	Mt Holland	0	0	0	0	100 000	275 000	350 000	372 000
Galaxy	Mt Cattlin	165 000	160 000	200 000	250 000	260 000	280 000	280 000	280 000
Mineral Res / Ganfeng	Mt Marion	384 000	350 000	350 000	350 000	350 000	350 000	350 000	400 000
Pilbara Minerals	Pilgangoora	28 800	225 000	250 000	300 000	400 000	500 000	650 000	750 000
Altura	Pilgangoora	48 000	180 000	220 000	220 000	260 000	260 000	280 000	280 000
A40	Bald Hill	77 000	130 000	130 000	150 000	180 000	180 000	250 000	280 000
Nemaska	Quebec	0	0	0	50 000	100 000	150 000	150 000	150 000
Bikita	Bikita	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000
AMG	Mibra	20 000	75 000	75 000	75 000	75 000	100 000	120 000	120 000
Other China	Various	85 000	85 000	85 000	85 000	85 000	85 000	85 000	100 000
Hard rock (New)	Various	0	0	0	60 000	100 000	150 000	200 000	300 000
	TOTAL	1 473 800	2 090 000	2 270 000	2 840 000	3 510 000	4 280 000	4 765 000	5 082 000
	% Change		41.81%	8.61%	25.11%	23.59%	21.94%	11.33%	6.65%
	Capacity **	190 168	269 677	292 903	366 452	452 903	552 258	614 839	655 742
	Estimate	127 800	170 300	210 500	269 500	338 000	413 500	504 550	543 796
	Utilization %	**67.20%**	**63.15%**	**71.87%**	**73.54%**	**74.63%**	**74.87%**	**82.06%**	**82.93%**

** based on a 7.75 SC6.0 conversion factor per ton of chemical

Source: RK Equity estimates, Company Reports

Considering the difficulties of achieving OEM qualification and the anticipated tightening of battery grade/quality specifications, we have applied a $2,000/t premium when compared to China spot prices. As OEM qualification typically takes at least 12-24 months depending on the supplier, OEM battery qualified lithium demand is “lagged” by supply, further underpinning the motivation for a premium price.

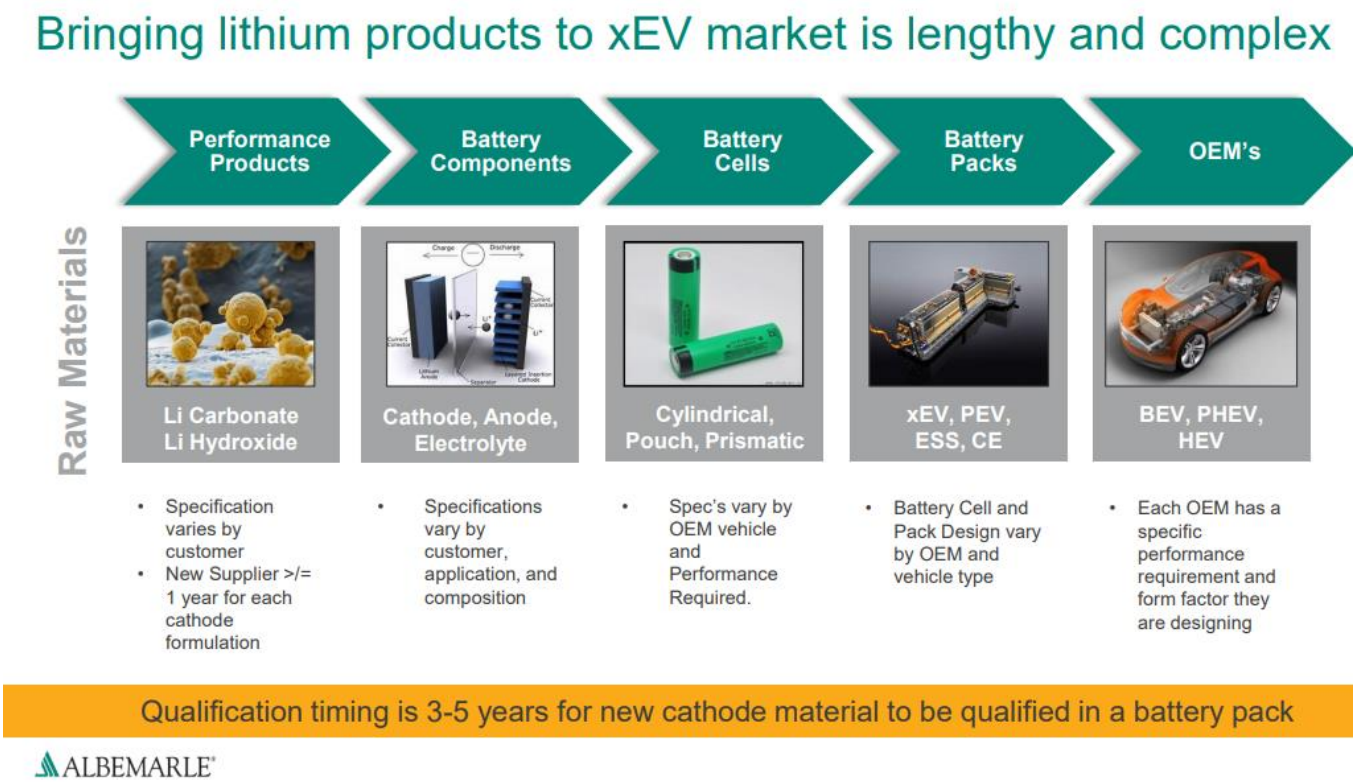


Figure 6: Qualification process and timeline (Albemarle Company Presentation)

Updated Scoping Study

Scoping Study Results

The Scoping Study is based on the updated Mineral Resource Estimate for the Piedmont Lithium Project reported in June 2019, of 27.9Mt at a grade of 1.11% Li_2O and the By-Product Mineral Resource Estimates comprising 7.4Mt of quartz, 11.1Mt of feldspar and 1.1Mt of mica reported in July 2019.

The Scoping Study contemplates a 25-year project life, with the downstream lithium hydroxide chemical plant commencing in year 3 of mining operations. The ramp up period for Chemical Plant operations is estimated to achieve nameplate capacity after a 3 year ramp up period. The mining production target is approximately 25.6M at an average run of mine grade of 1.11% Li_2O (undiluted) over the 25-year project life. Table 2 provides a summary of production and cost figures for the integrated project.

Table 2: Piedmont Lithium Project – Life of Mine ("LOM") Integrated Project	Unit	Estimated Value
PHYSICAL – MINE/CONCENTRATOR		
Mine life	years	25
Steady-state annual spodumene concentrate production	t/y	160,000
LOM spodumene concentrate production	t	3,805,000
LOM quartz by-product production	t	1,920,000
LOM feldspar by-product production	t	2,795,000
LOM mica by-product production	t	275,000
LOM feed grade (excluding dilution)	%	1.11
LOM average concentrate grade	%	6.0
LOM average process recovery	%	85
LOM average strip ratio	waste:ore	10.4:1
PHYSICAL – LITHIUM CHEMICAL PLANT		
Steady-state annual lithium hydroxide production	t/y	22,700
LOM lithium hydroxide production	t	489,000
LOM concentrate supplied from Piedmont mining operations	t	3,100,000
Chemical Plant life	years	23
Commencement of lithium hydroxide chemical production	year	3
OPERATING AND CAPITAL COSTS – INTEGRATED PROJECT		
Average LiOH production cash costs using self-supplied concentrate	US$/t	$3,105
Mine/Concentrator – Direct development capital	US$M	$106.2
Mine/Concentrator – Owner's costs	US$M	$11.3
Mine/Concentrator – Land acquisition costs	US$M	$28.3
Mine/Concentrator – Contingency	US$M	$22.1
Mine/Concentrator – Sustaining and deferred capital	US$M	$147.9
Mine/Concentrator – Working Capital	US$M	$20.0
Chemical Plant - Direct development capital	US$M	$252.6
Chemical Plant – Owner's costs	US$M	$12.1
Chemical Plant – Contingency	US$M	$79.4
Chemical Plant – Sustaining and deferred capital	US$M	$86.5
FINANCIAL PERFORMANCE – INTEGRATED PROJECT – LIFE OF PROJECT		
Annual steady state EBITDA	**US$M/y**	**$240-$340**
Annual steady state after-tax cash flow	**US$M/y**	**$195-$260**
Net operating cash flow after tax	**US$M**	**$5,370**
Free cash flow after capital costs	**US$M**	**$4,630**
After tax Net Present Value (NPV) @ 8% discount rate	**US$M**	**$1,447**
After tax Internal Rate of Return (IRR)	**%**	**34**

Figure 7: Updated Scoping Study (Piedmont Company Report)

Major changes to the Scoping Study released in 2018 are as follows:

- Mine life extension to 25 years and the chemical plant life to 23 years as a result of the increase of the mineral resource to 27.9 Mt. **Piedmont has the potential to expand its land package and extend the resource to 40Mt-50Mt and the mine/chemical plant life to 30 years plus**.
- Increased total capex for the mine/concentrator of $168m including $20m working capital (+-25% accuracy).
- Strip ratio has increased to 10.4:1 from 8.2:1.

- NPV has increased (with mine/plant life) and the IRR has fallen to 34% (increased capex).

The key to Piedmont extending its mine life and increased project value: Exploration and Land Acquisition

Figure 8: Graphical depiction of Piedmont's land consolidation strategy
(Piedmont Company Reports)

Consolidation of land lies at the heart of Piedmont's resource growth strategy. Since April the company has expanded its maiden resource of 16.2 MT to 27.9 MT and has an immediate exploration upside target of 6-7 MT. **We believe that a final resource of 40MT – 50MT is achievable mid-term (12 months +) without the need to option/acquire substantially more land packages**.

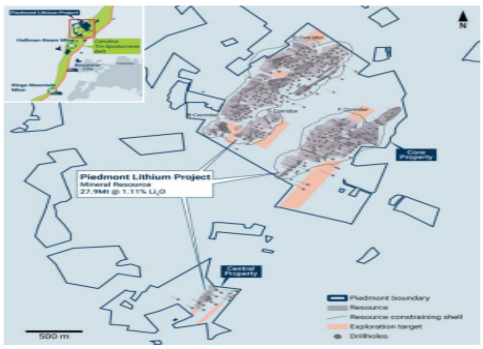
In April, we flagged the steepness of the pegmatites on the Central property and note that the latest Scoping Study now reflects a projected strip ratio of 10.4:1, up from 8.2:1. This increase, however, is somewhat offset by Central's higher grade (1.34% versus Core 1.09%).

High-Grade Mineral Resource

One of North America's Largest Hard-Rock Lithium Resources

27.9 Mt @ 1.11% Li_2O

- 764,000 tonnes of contained LCE
- 100% of the lithium is attributable to spodumene mineralization
- Shallow open pits – 74% of resource within 100m of surface and 97% within 150m
- Open along strike and at depth – Phase 4 drilling ongoing



Project Wide Mineral Resource Estimate for the Piedmont Lithium Project (0.4% cut-off)

Resource Category	Core property		Central property		Total			
	Tonnes (Mt)	Grade (Li_2O%)	Tonnes (Mt)	Grade (Li_2O%)	Tonnes (Mt)	Grade (Li_2O%)	Li_2O (t)	LCE (t)
Indicated	12.5	1.13	1.41	1.38	13.9	1.16	161,000	398,000
Inferred	12.6	1.04	1.39	1.29	14.0	1.06	148,000	366,000
Total	**25.1**	**1.09**	**2.80**	**1.34**	**27.9**	**1.11**	**309,000**	**764,000**

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ASX:PLL; NASDAQ:PLL

Figure 9: Upgraded mineral resource (Piedmont Company Reports)

The upgraded mineral resource and slightly reduced mine throughput (1.15 MT versus 1.2MT) has secured Piedmont a 25-year and 23-year mine and chemical plant life.

Vast Exploration Upside

Large Areas of the Carolina Tin-Spodumene Belt Remain Unexplored

"The pegmatite deposit in the Kings Mountain district in North Carolina is considered one of the three largest lithium bearing pegmatite deposits in the world together with the Manono deposit in the Democratic Republic of Congo and Greenbushes in Australia." – *Minerals Engineering – January 2019 Issue*

Project Wide Exploration Target for the Piedmont Lithium Project

Exploration Target	Core Property		Central Property		Total	
	Tonnes (Mt)	Grade (Li_2O%)	Tonnes (Mt)	Grade (Li_2O%)	Tonnes (Mt)	Grade (Li_2O%)
Exploration Target*	4.0-4.5	1.0-1.2	2.0-2.5	1.1-1.3	6.0-7.0	1.0-1.3

*The potential quantity and grade of the Exploration Targets is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Figure 10: Exploration upside (Piedmont Company Reports)

Average XRD Analysis Results from 46 Drill Core and Composite Samples of Piedmont Ore						
Mineralogy		Average Wt. (%) of Mineral Types				
		Core Property			Central Property	Sunnyside Property
		Semi-quantitative Samples (13 Samples)	Quantitative Samples (19 Samples)	Composite Variability Samples (10 Samples)	Quantitative Samples (3 Samples)	Quantitative Sample (1 Sample)
Lithium-bearing minerals	Spodumene	17.8	19.9	16.6	15.9	14.8
	Petalite	-	-	-	-	-
	Lepidolite	-	-	-	-	-
	Zinnwaldite	-	-	-	-	-
	Holmquistite	-	-	0.5	-	-
Non-lithium bearing minerals		82.2	80.1	82.9	84.1	85.2
Total		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Figure 11: Lithium bearing minerals (Piedmont Company Reports)

Dense Medium Separation ("DMS") and flotation Locked-Cycle Tests ("LCT") test work results showed high quality spodumene concentrate product with a grade above 6.0% Li_2O, iron oxide below 1.0%, and low impurities from composite samples. Piedmont test results compare favorably in several quality categories with the reported shipments of three emerging Australian spodumene producers.

Table 1: Results of Dense Medium Separation + Locked Cycle Flotation Test Results (Composite Sample 1)							
Sample	Feed Grade Li_2O (%)	Concentrate Grade Li_2O (%)	Fe_2O_3 (%)	Na_2O (%)	K_2O (%)	CaO+ MgO + MnO (%)	P_2O_5 (%)
Piedmont Composite Sample 1	1.11	6.35	0.93	0.63	0.49	0.96	0.32
Australian Producer 1	NR	6.00	1.20	NR	NR	NR	NR
Australian Producer 2	NR	5.90	1.50	NR	NR	NR	NR
Australian Producer 3	NR	6.10	0.61	0.80	0.76	0.79	0.30

NR: Not Reported

The composite samples were prepared to approximate the average grade of the Project's ore body. Overall lithium recovery during testwork for the preferred flowsheet was 77% at a grade of 6.35% Li_2O. Simulations based on the testwork results support an overall plant design recovery of 85% when targeting a 6.0% Li_2O spodumene concentrate product. Further optimization will be undertaken in a future feasibility level pilot testwork program.

Figure 12: Floatation test results (Piedmont Company Reports)

Results from dense medium separation and locked-cycle testwork on the preferred flowsheet are reported in Table 2 below.

Table 2: Individual Results for DMS and LCT Tests for Composite Sample 1						
Sample	Concentrate Grade Li_2O (%)	Fe_2O_3 (%)	Na_2O (%)	K_2O (%)	CaO+ MgO + MnO (%)	P_2O_5 (%)
Dense Medium Separation	6.42	0.97	0.56	0.45	0.51	0.12
Locked Cycle Test	6.31	0.90	0.68	0.52	1.25	0.46
Combined Product	6.35	0.93	0.63	0.49	0.96	0.32

Figure 13: Floatation test results (Piedmont Company Reports)

As spodumene is the only lithium-bearing mineral at the project (a fact noted in our field visit in March), we are increasingly more confident that Piedmont could achieve a 75% recovery rate.

However, the table below highlights the difficulties faced by Piedmont's Australian peers.

Company	Project	Recovery rate (Q2 2019)
Galaxy Resources	Mt Cattlin	58%
Pilbara Minerals	Pilgangoora	55%
Alita Resources	Bald Hill	67%
Altura Mining	Pilgangoora	65%

Based on the released locked-cycle test results the low level of impurities is encouraging, the same can be said for the achieved concentrate grade.

This can be said particularly as the composite samples provided were:

- Tested to pre-feasibility study level standards by SGS Lakefield
- Reflective of the average resource grade (1.11%)
- Combined with dilution material to accurately simulate future operations

The anticipated split between a DMS product and floatation fines is 40/60. **Low recoveries from flotation has been the biggest issue faced by Australian producers and will be the area to watch closely during ramp up**. **As Piedmont is planning to be a vertically integrated company, there is potential for a trade-off between recovery rates and spodumene concentrate grade when they switch from selling to a 3rd party and supplying internally**. LiOH converters can utilize feed grades of <6% and still achieve low opex (Mt Holland).

Figure 1 shows photographs of the coarse and fine DMS concentrates produced using the preferred process flow diagram. Piedmont spodumene concentrate is generally light green to white colored.

Figure 1. Coarse and fine final DMS concentrates produced from Piedmont composite samples

Figure 14: Floatation test results (Piedmont Company Reports)

Mine concentrator flow sheet

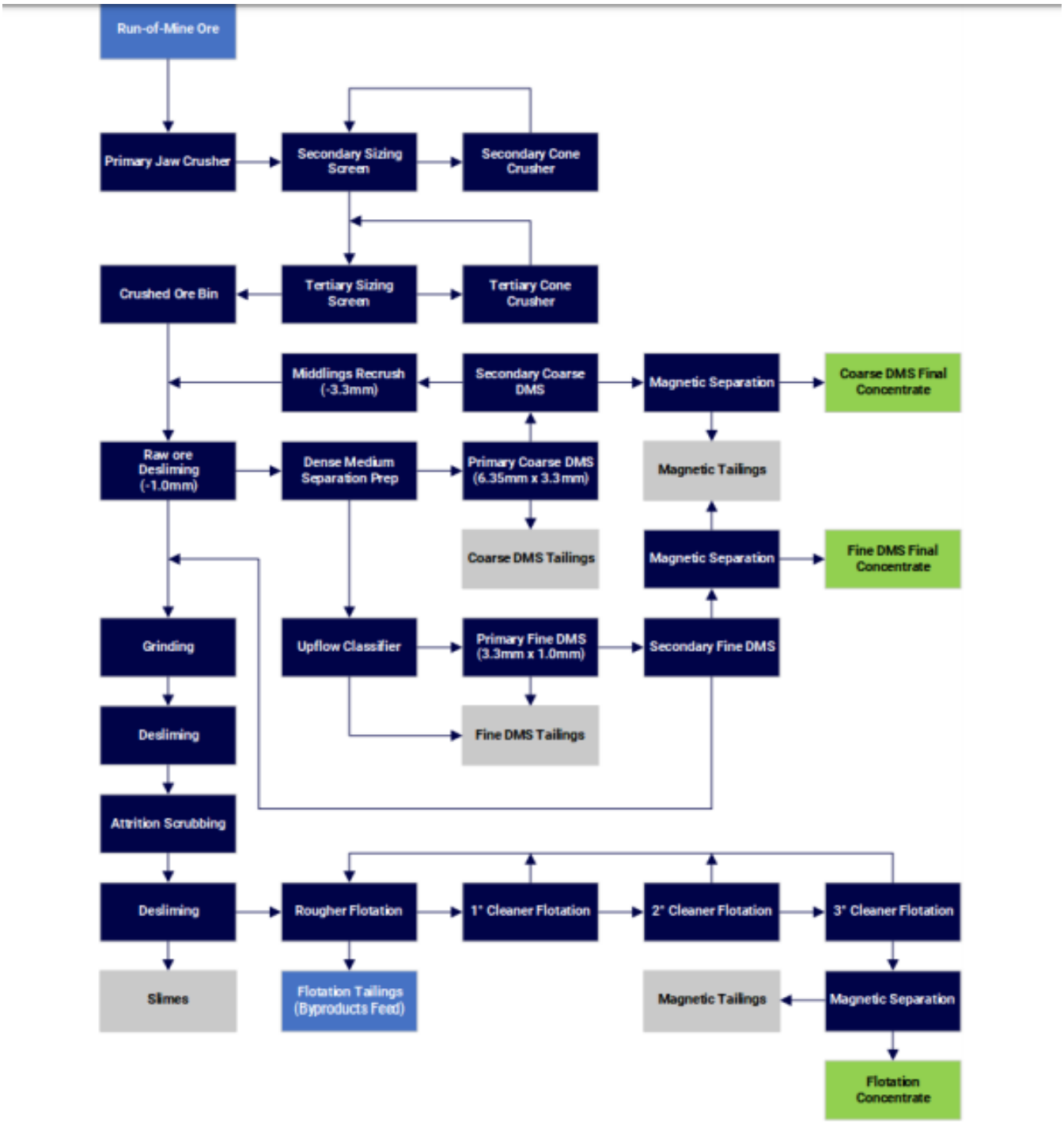


Figure 15: Mine concentrator flow sheet (Piedmont Company Reports)

Piedmont's mineralogy is favorable as almost all lithium occurs as spodumene with only a minor trace of another lithium-bearing mineral. Many other hard rock projects have a range of host minerals, which makes processing a more complicated task. Given Piedmont's high strip ratio (10.4:1), the implementation of effective material sorting will be critical. Piedmont's new flow sheet shown above is

more robust than the previous version. This comes off the back of the successful metallurgical test work results. The production split is 40% DMS and 60% floatation concentrate. Within the DMS portion (40%) the plan is to produce both a coarse (6.5mm x 3.3mm)(40%) and a fines (3.3mm x 1mm)(60%) DMS product along with a fines floatation concentrate.

As mentioned above, there is a direct trade off between recovery rates and grade. According to Galaxy Resources, in their latest earnings update, the trade off at Mt Cattlin is a 3% swing in the recovery rate for each 0.1% grade adjustment. Piedmont achieved a 77% recovery rate producing a 6.35% concentrate. The company is targeting an 85% recovery rate when producing a 6% concentrate. This estimation is consistent with Galaxy's feedback regarding recovery rates/grade from an operating mine.

Once Piedmont directs its spodumene concentrate exclusively to its hydroxide plant there could be an opportunity to reduce the feedstock grade to ~5.8% and still produce a battery grade/quality product. The differential in recovery rates (~+6%) could outweigh the additional cost of processing extra material. Especially as the hydroxide plant will be located within 20 miles of the concentrator. This is an example of a possible benefit of being an integrated producer, the feedback loop and optimization of feedstock between concentrator and chemical plant is immediate.

Opex, Capex and Timeline Analysis for the Mine Concentrator and Chemical Plant

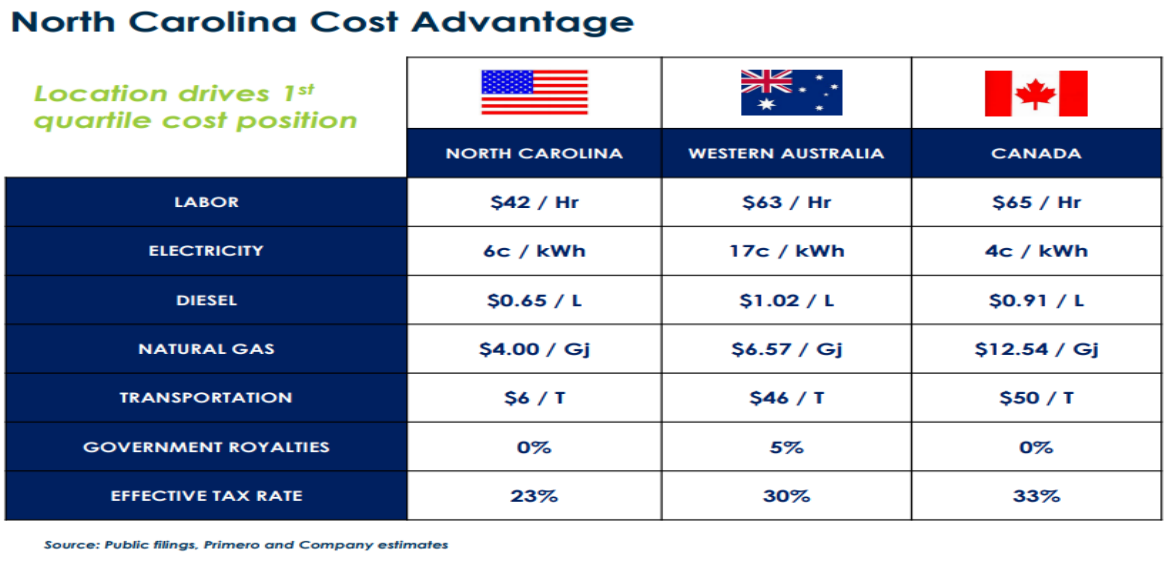


Figure 16: Table depicting North Carolina cost advantage

(Public filings, Primero and Company Estimates)

The location of the project proves to be an advantage coupled with substantial cost savings for both operational costs and capex. Labour, electricity and other inputs are traded off against an average recovery grade (0.76% estimated) and high strip ratio (10.4:1 estimated). In addition, when Piedmont operates as an independent SC6.0 producer, the cost of transportation to China or elsewhere will likely be greater than $75/t and closer to $100 - $120/t owing to smaller shipment sizes during the ramp-up phase. **Overall, despite conservative assumptions on mining costs and other concentrator processing costs, Piedmont should achieve a ~$375/t average cash operating cost (~$330/t after by-product credits and transport costs), achieving one of the lowest operating costs globally.**

Based on recent quarterly reports from Australian competitors, the entire hard rock operating cost curve has shifted upwards such that a sub $350/t cash operating cost would make Piedmont competitive especially after shipping costs. **The substantial transport savings and strategic value offered by an ideally located chemical conversion plant makes the rationale for progressing to a downstream chemical producer very compelling.**

Except for Greenbushes (large-scale and mature), there are not many SC6.0 producers expected to achieve operating costs materially below those of Piedmont.

Industry statistics Q2 2019:

Company	Alita	Altura	Galaxy	Mt Marion	Pilbara Minerals
Qtr Production (t)	38,717	42,402	56,460	90,000	63,782
Qtr Sales (t)	18,669	38,491	29,439	81,000	43,214
Cash cost of prod US$	545	392	337	N/A	528
Sales Price US$	749	600	N/A	608.95	644
Qtr closing inventory (t)	32,296	12,403	54,000	N/A	53,000
Cash balance A$m	20.05	9.51	250.4	N/A	63.2

The same can be said for Piedmont's estimated hydroxide AISC relative to peers. Whilst US $5,500/t would suggest a 2nd quartile position, a number of projects projected to be below $5,500/t are greenfield and are likely to see upward revisions as they transition from feasibility to production.

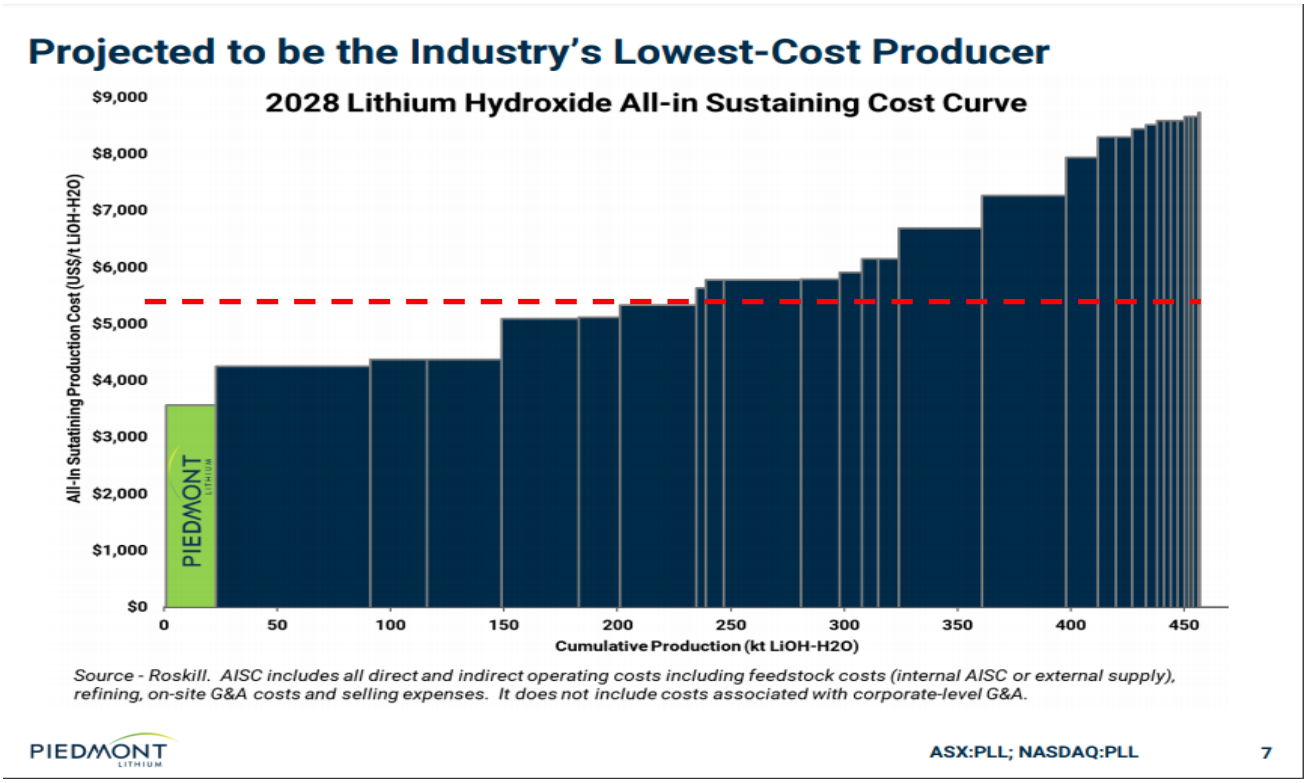


Figure 17: Bar Graph illustrating the 2028 LiOH Cost Curve (Author, Piedmont Company Reports)

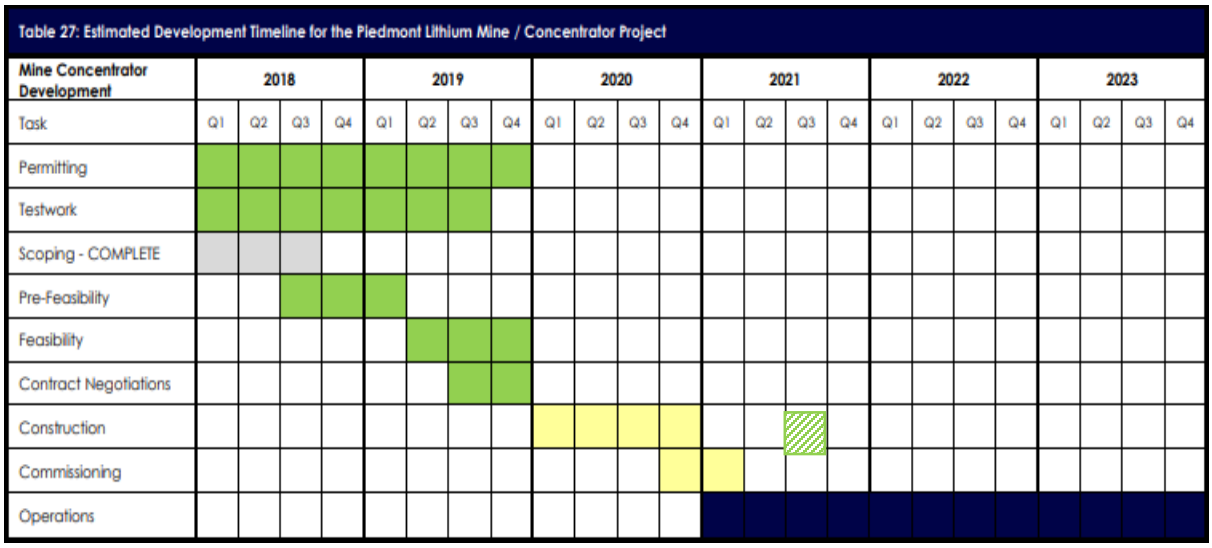


Table 27: Estimated Development Timeline for the Piedmont Lithium Mine / Concentrator Project																								
Mine Concentrator Development	2018				2019				2020				2021				2022				2023			
Task	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Permitting																								
Testwork																								
Scoping - COMPLETE																								
Pre-Feasibility																								
Feasibility																								
Contract Negotiations																								
Construction																								
Commissioning																								
Operations																								

Source: company report

Figure 18: Table showing the estimated development timeline (Author, Piedmont Company Reports)

Based on management interaction and company releases, the likely operational start date is Q3 2021. This reflects a delay of approximately six months but should provide the company with additional time to secure a strong offtake arrangement. The lithium market and pricing are anticipated to be firmer in 2020 and, owing to this, a delay could be opportunistic for Piedmont regarding negotiations. As a further knock-on effect, the proposed integration into a chemical plant after the completion and successful ramp-up of the concentrator will also be delayed (June 2024).

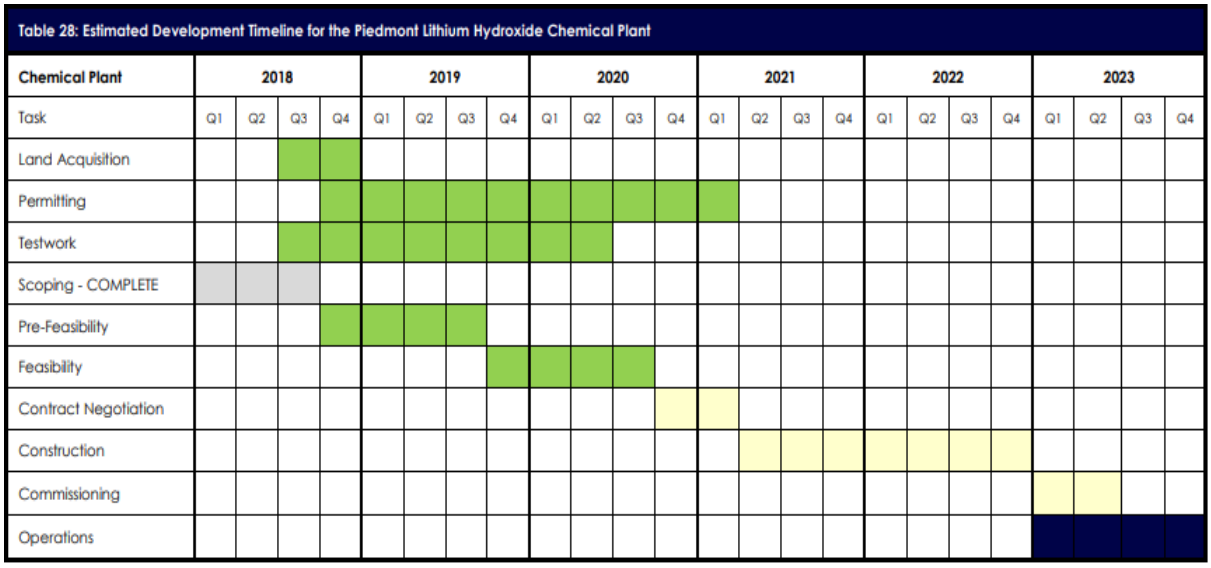


Table 28: Estimated Development Timeline for the Piedmont Lithium Hydroxide Chemical Plant																								
Chemical Plant	2018				2019				2020				2021				2022				2023			
Task	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Land Acquisition																								
Permitting																								
Testwork																								
Scoping - COMPLETE																								
Pre-Feasibility																								
Feasibility																								
Contract Negotiation																								
Construction																								
Commissioning																								
Operations																								

Figure 19: Table showing the estimated development timeline for the LiOH plant (Piedmont Company Reports)

These models assume Piedmont will commence chemical production in June 2024 and, as such, the company is offered 3-years of production from the concentrator to generate substantial after-tax cash flows ($153m). These would assist with financing the conversion plant capex and perfect a consistent, quality SC6.0 product that would, in time, be utilized in the production of battery-quality chemicals qualified for the global energy storage market.

By June 2024, there is a high probability that the USA auto market will have made significant progress in securing an integrated domestic supply chain to manufacture EV's. SK Innovation recently announced plans to build a US$1.6-5bn battery cell plant in Georgia while LG Chem produces some cathode in Michigan. Additional plants should follow this lead and the logical extension of that development will be the desire to secure lithium chemicals from US based suppliers.

Mine concentrator capital cost analysis

Capital Costs

Piedmont estimates the capital cost to construct the mine and concentrator at US$106.2M, excluding contingency, land expenses, owner's costs, and working capital. The sustaining capital includes the costs for financed mobile equipment including rebuild and replacement costs through the 25-year mine life.

Table 14 highlights the total estimated capital expenditures for the Mine/Concentrator. A 20% contingency has generally been carried on costs in the economic modelling of the Mine/Concentrator project except where contracted values, such as land expenses, have been defined.

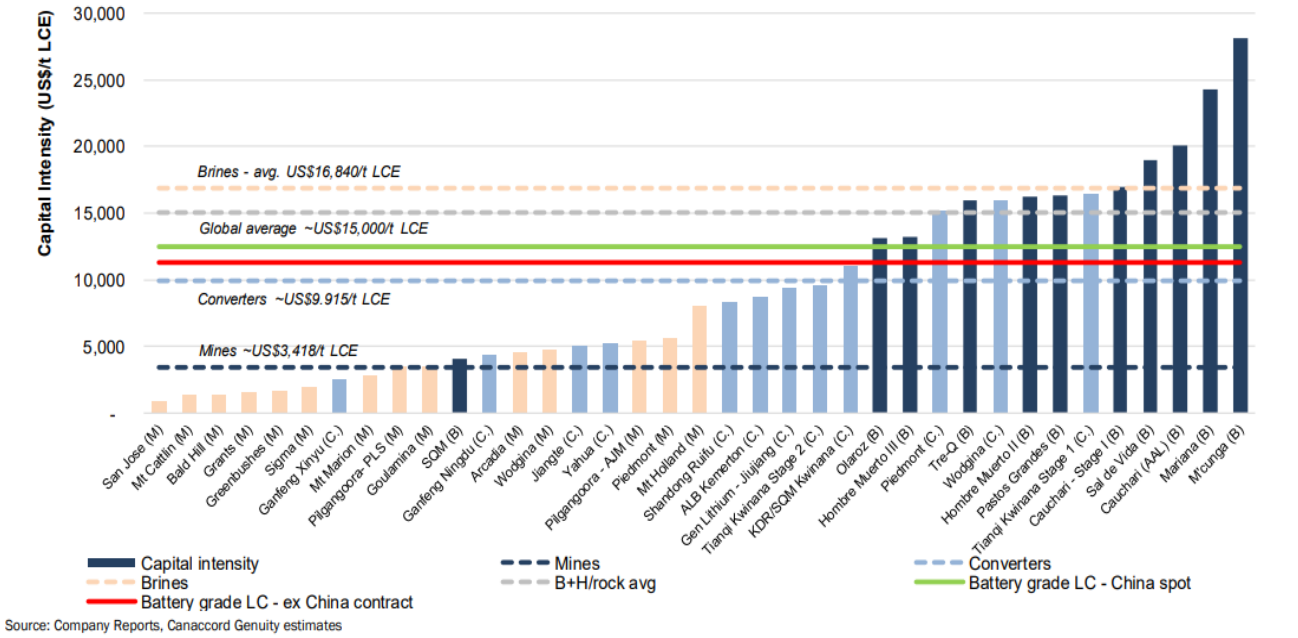
Table 14: Mine/Concentrator Estimated Capital Costs

Cost Center	Life-of-mine total (US$ million)
Site establishment and bulk earthworks	$13.8
Pre-stripping expenses	$8.0
Process plant	$63.3
Non-process infrastructure	$3.9
Engineering, procurement, construction management (EPCM)	$13.4
Construction indirects	$2.3
Spares and commissioning	$1.5
Total	**$106.2**
Land acquisition	$28.3
Owner's costs	$11.3
Total Initial Capital (Excluding Contingency)	**$145.8**
Contingency	$22.1
Total Development Capital	**$167.9**
Deferred and sustaining capital (including contingency)	$147.9
Working capital (including contingency)	$20.0

Figure 20: Mine/concentrator capital costs (Piedmont Company Reports)

Piedmont has substantially increased its capex estimate for the mine and concentrator to $106.2m to now include site establishment and pre-stripping. **The current proposed total development capital budget is now aligned with our estimates**. Excluding working capital, **the effective cost per ton on an LCE basis is now, assuming 7.5/t of SC6 per LCE, ~$7,000/t** using our annual production estimates. Comparing this estimate to other mines in Figure 21 suggests that such a budget is indeed achievable.

Figure 8: Lithium project capital intensity



Source: Company Reports, Canaccord Genuity estimates

Figure 21: Industry capex costs (Canaccord Genuity)

Western -Australian Concentrator Peer Comparison on a Throughput Basis

Altura:

A similar project is Altura - a recently completed hard rock project in Western Australia. Altura's capex budget was ~A$140m or approximately US$100m and it incurred a US$20m capex overrun (A$32m capital raise in Feb 2019). Adding the capex overrun to the original estimate equates to a total of US$120m for a 1.54 Mtpa throughput plant. Translated this equates to a capex of **US$80/t**.

Pilbara Minerals:

As a further reference point, Pilbara Minerals utilised **US $80/t** in its stage 1 definitive feasibility study if pre-production costs are included. However, it should be noted that Pilbara Minerals produces tantalite as a by-product credit. This means the tantalite circuit cost was included and, as the throughput plant has a 2 Mtpa capacity, there may have been economies of scale benefits.

Kidman Resources:

Kidman's IPFS indicates 2 Mtpa as an average annual throughput at an estimated all-in capex cost of US$348m for the mine and concentrator excluding a number of owner costs. Probably the most relevant data point is the mine concentrator cost, which is specific. The pure processor capex is $129m or **US$64.5/t**. Their IPFS capex estimates are currently under review.

Piedmont will be constructing its mine and concentrator in 2020/2021, approximately four years after its peers, assuming a 1.15Mtpa throughput and US$128.3m cost (including contingency) our model estimates a ~US$112/t.

Chemical Plant Capital Cost Analysis

Piedmont estimates the capital cost to construct the Chemical Plant at US$253M before owner's costs and contingency. A contingency of 30% has been carried in the economic modelling of the Chemical Plant project. Approximately US$141M of free cash flow is expected to be generated prior to completion of construction of the Chemical Plant from sales of spodumene concentrate in early years.

Table 15: Lithium Hydroxide Chemical Plant Estimated Capital Costs

Cost Centre	Life-of-mine total (US$ million)
Contractor directs – Chemical Plant	$208.4
Contractor indirects	$37.5
Spares and commissioning	$6.7
Total	**$252.6**
Owner's Costs	$12.1
Contingency	$79.4
Total Development Capital	**$344.1**
Development Capital to be funded from free cash flows	$141.0
Development Capital to be funded from additional sources	$203.1
Deferred and sustaining capital (including contingency)	$86.5

Figure 22: Mine/concentrator capital costs (Piedmont Company Reports)

Western-Australian peer comparisons:

Wodgina/Kemerton:

JV between ALB and Mineral Resources – ALB has upped the capex estimate to US $1.6bn for 100,000t of nameplate capacity. This translates to US$16,000/t. The latest estimates for Kemerton are US$1.2bn for 50,000tpa capacity, equating to US$24,000/t. Assuming the Wodgina chemical plant were engineered to the same standard, the final cost to construct would likely have been well in excess of $16,000/t.

Tianqi Kwinana Stage 1:

The **final capex** is rumoured to be ~US $1bn for 48,000/t. This is roughly US $200m – US $250m over budget. This is equivalent to **~US$20,800/t**. The original budget was US$700m or ~US$14,600/t.

KDR / SQM Kwinana:

The JV has yet to update the market with capex estimates however, it is highly probable these will be increased to match comparable peers. At present, the IPFS has a high proportion of the overall capex ascribed to the mine concentrator. The total capex for both the mine concentrator and the chemical conversion plant is close to US$17,000/t. Following the current review our expectation is a final estimate of **~US$20,000/t**.

Piedmont will only begin the conversion plant construction in 2022 / 2023. There will be some inflationary increases during the three to four-year period until this time. The model utilises a **US $17,500/t** capex estimate, which translates to a total of US$400m.

Whilst Piedmont's capex per ton estimate for the chemical plant is below its Western Australian peer group, its concentrator and chemical plant capex of $24,500/t combined (our estimate) is realistic in our opinion.

Management and Major Shareholders

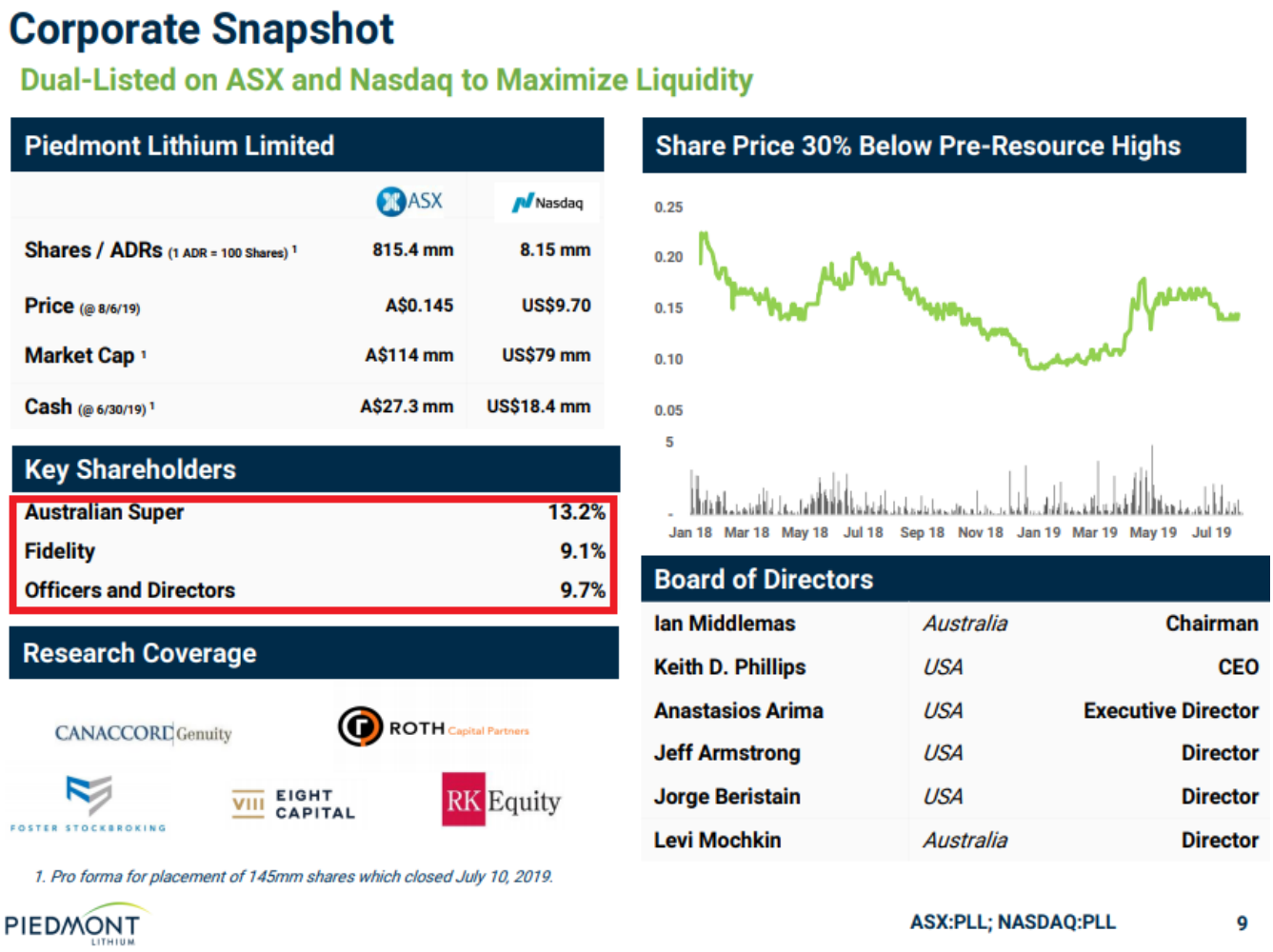


Figure 23: Corporate Snapshot (Piedmont Company Reports)

Management and strategic shareholders (Australian Super and Fidelity) collectively own more than 30% of the company. Importantly, the strategic institutional shareholders are very supportive of the company and are likely to participate in future capital raises. The outstanding shares have recently increased (145m) following a capital raise of A$21m at 14.5 cents per share in July 2018. **The well-timed capital raise now means that Piedmont has a ~US$18.4m cash balance. This is sufficient to progress the company to the point of a final investment decision**.

Estimated Fair Value Analysis

Base Case

Date	Methodology	EFV AUD	Life cycle	IRR %	Shares in Issue (mn)	New issue (mn)	Price (A$)	Options	Exp date	Strike price	Final shares in issue (mn)
Jul-19		0.145	Updated resource	29.28%	670.4	145.0	0.145				815.4
Sep-19		0.13	Updated scoping study	32.77%	815.4						815.4
Dec-19	P/NPV	0.17	Feasibility	28.08%	815.4			14.0	31-Dec-19	0.05	829.4
Dec-19					829.4			1.0	31-Dec-19	0.08	830.4
Dec-19					830.4			16.5	31-Dec-19	0.10	846.9
Jun-20	P/NPV	0.19	Permitting	28.41%	846.9			6.0	10-Jul-20	0.10	852.9
Dec-20	P/NPV	0.22	Funding / offtake	27.81%	852.9	534.5	0.220	6.0	10-Jan-21	0.12	1 393.4
Mar-21			Construction SC6.0		1393.4						1 393.4
Jun-22	EV/EBITDA 5.5x	0.23	SC6.0 prod + LiOH fund	42.94%	1393.4	752.0	0.227				2 145.4
Jun-25	EV/EBITDA 8.5x	0.66	LiOH steady state		2 145.4						2 145.4

Figure 24: Table summarising the base case estimated fair value and issued shares (Author)

Upside Scenario

Date	Methodology	EFV AUD	Life cycle	IRR %	Shares in Issue (mn)	New issue (mn)	Price (A$)	Options	Exp date	Strike price	Final shares in issue (mn)
Jul-19		0.145	Updated resource	32.20%	670.4	145.0	0.145				815.4
Sep-19		0.13	Updated scoping study	35.85%	815.4						815.4
Dec-19	P/NPV	0.17	Feasibility	31.20%	815.4			14.0	31-Dec-19	0.05	829.4
Dec-19					829.4			1.0	31-Dec-19	0.08	830.4
Dec-19					830.4			16.5	31-Dec-19	0.10	846.9
Jun-20	P/NPV	0.19	Permitting	31.85%	846.9			6.0	10-Jul-20	0.10	852.9
Dec-20	P/NPV	0.22	Funding / offtake	31.62%	852.9	534.5	0.220	6.0	10-Jan-21	0.12	1 393.4
Mar-21			Construction SC6.0		1393.4						1 393.4
Jun-22	EV/EBITDA 6.5x	0.28	SC6.0 prod + LiOH fund	39.81%	1393.4	616.5	0.277				2 009.9
Jun-25	EV/EBITDA 9x	0.76	LiOH steady state		2 009.9						2 009.9

Figure 25: Table summarising the upside scenario estimated fair value and issued shares (Author)

Key Assumptions Used:

Key Model Assumptions Mine Concentrator	Piedmont Updated SS	Author Mine Concentrator
Life on mine (years)	25	35
Strip ratio	10.4:1	10.4:1
Mining Inventory (Mt)	25.6	38.78
Total development capex	168	168
Ore Mined (Mtpa)	1.15	1.20
Recovery %	85	75
LOM avg cash cost US$/t	193	343
Avg steady state SC6 ktpa	160 000	156 754
SC6 avg price US$/t	650	650

Key Model Assumptions Chemical Plant	Piedmont Updated SS	Author Mine Concentrator
Life on mine (years)	23	32
Total development capex	344	425
Start date	Q1/2023	Q3/2024
Avg LiOH price US$/t	14 000	12 500
Avg SC6 cost US$/t	1 174	2 776
Avg processing cost US$/t	1 930	2500
LOM LiOH cost US$/t	3 104	4 913
Avg steady state LiOH ktpa	22 700	18 453
Avg steady state EBITDA US$m	240+	141

Figure 26: Scoping Study and RK Equity estimates (Company report and author)

The **estimated fair value** of Piedmont at the two major life cycle stages are:

1. **Steady state production of SC6.0** (156.7Ktpa) generating ~US $48m EBITDA

	SC6.0 price US$/t						
	500	550	600	650	700	750	800
4.0	0.075	0.106	0.138	0.169	0.200	0.232	0.318
4.5	0.090	0.126	0.161	0.196	0.231	0.267	0.364
5.0	0.106	0.145	***0.184***	***0.223***	***0.262***	0.302	0.410
EV/EBITDA 5.5	0.121	0.164	***0.207***	***0.250***	***0.293***	0.337	0.456
6.0	0.136	0.183	***0.230***	***0.277***	***0.324***	0.371	0.501
6.5	0.152	0.203	0.254	0.304	0.355	0.406	0.547
7.0	0.167	0.222	0.277	0.332	0.386	0.441	0.593
	PLL FAIR VALUE SHARE PRICE (AUD)						

2. **Steady state** production of SC6.0 and **steady state LiOH production** from a chemical plant generating ~US $141m EBITDA

	LiOH price US$/t						
	11 000	11 500	12 000	12 500	13 000	13 500	14 000
7.0	0.402	0.443	0.484	0.525	0.565	0.606	0.647
7.5	0.439	0.483	0.526	0.570	0.614	0.658	0.702
8.0	0.476	0.523	***0.569***	***0.616***	***0.663***	0.710	0.756
EV/EBITDA 8.5	0.513	0.562	***0.612***	***0.662***	***0.712***	0.761	0.811
9.0	0.550	0.602	***0.655***	***0.708***	***0.760***	0.813	0.866
9.5	0.587	0.642	0.698	0.753	0.809	0.865	0.920
10.0	0.624	0.682	0.741	0.799	0.858	0.916	0.975
	PLL FAIR VALUE SHARE PRICE (AUD)						

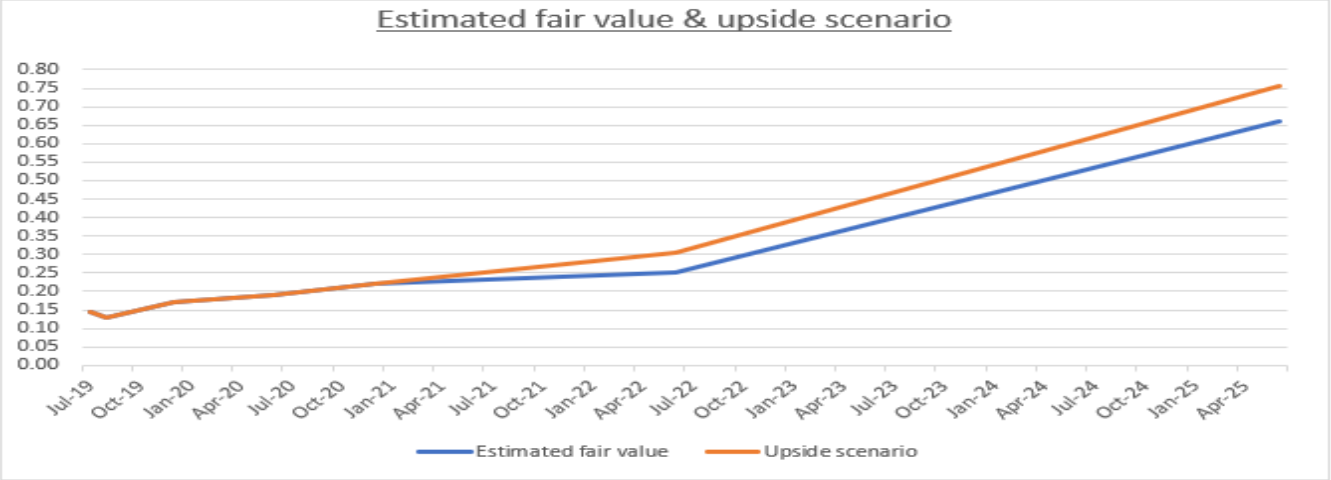


Figure 27: Estimated Fair Values Chart (Author)

Piedmont NPV model – extended mine life and chemical plant

Variable	Average	Jun-22	Dec-22	Jun-23	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32	Dec-33	Dec-34	Dec-35	Dec-36
Li Concentrate	155 164					43 650	111 300	157 500	138 000	166 500	148 500	150 000	157 500	157 500	157 500	157 500	157 500	157 500
LiOH	8					5 456	13 913	19 688	17 250	20 813	18 563	18 750	19 688	19 688	19 688	19 688	19 688	19 688
Plant capacity %	22 700					24.04%	61.29%	86.73%	75.99%	91.69%	81.77%	82.60%	86.73%	86.73%	86.73%	86.73%	86.73%	86.73%
Cost per SC6.0/t	344					322.25	247.75	284.20	349.00	217.38	470.50	371.28	239.65	353.05	353.05	353.05	353.05	353.05
Total SC6 cost	2 784					2 578	1 982	2 274	2 792	1 739	3 764	2 970	1 917	2 824	2 824	2 824	2 824	2 824
Conversion cost/t						2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500
Transport (FOB)						35	35	35	35	35	35	35	35	35	35	35	35	35
Total cost LiOH/t	5 284					5 113	4 517	4 809	5 327	4 274	6 299	5 505	4 452	5 359	5 359	5 359	5 359	5 359
LiOH US$ price /t						11 000	11 500	12 500	12 500	12 500	12 500	12 500	12 500	12 500	12 500	12 500	12 500	12 500
Revenue US$ (mn)						60.02	159.99	246.09	215.63	260.16	232.03	234.38	246.09	246.09	246.09	246.09	246.09	246.09
Net Revenue SC6.0 US$ (mn)						20.90												
Costs US$ (mn)						-27.90	-62.84	-94.67	-91.89	-88.95	-116.93	-103.22	-87.65	-105.51	-105.51	-105.51	-105.51	-105.51
EBITDA US$ (mn)	140.94					53.02	97.15	151.42	123.73	171.20	115.11	131.15	158.44	140.58	140.58	140.58	140.58	140.58
Depreciation						-323.70	-41.85	-20.93	-10.46	-5.23	-2.62	-1.31	-0.65	-0.33	-0.16	-0.08	-0.04	-0.02
SC6 depletion allowance						-20.81	-22.74	-22.52	-19.73	-23.81	-21.24	-21.45	-22.52	-23.17	-23.17	-23.17	-23.17	-23.17
Bi product depletion						-1.35	-1.48	-1.46	-1.28	-1.55	-1.38	-1.40	-1.46	-1.51	-1.51	-1.51	-1.51	-1.51
Taxable income						-292.84	31.09	106.51	92.25	140.61	89.87	107.00	133.80	115.58	115.74	115.83	115.87	115.89
Federal & State tax	21%					61.50	-6.53	-22.37	-19.37	-29.53	-18.87	-22.47	-28.10	-24.27	-24.31	-24.32	-24.33	-24.34
After tax cashflow						114.51	90.62	129.06	104.36	141.67	96.23	108.68	130.34	116.31	116.27	116.26	116.25	116.24
Sustaining capex						-1.09	-2.78	-3.94	-3.45	-4.16	-3.71	-3.75	-3.94	-3.94	-3.94	-3.94	-3.94	-3.94
Capex US$			-1.00	-150.00	-100.00	-150.00					-20.00							
FCF			-1.00	-150.00	-100.00	-36.58	87.84	125.12	100.91	137.51	72.52	104.93	126.41	112.37	112.34	112.32	112.31	112.31
8.00%	Discount rate	NPV	784.81															
		IRR	27.70%															

Assumptions:

1. 35-year mine life, 32-year chemical plant life
2. Mining inventory – 38.8 Mt
3. Capex for the chemical plant of $400m, $20m land acquisition cost after year 5
4. Average LiOH selling price of $11,000/t in year 1 and $11,500/t in year 2, long term $12,500/t
5. Capex for further land acquisition is estimated at US $20m – drawdown is June-202

Conclusion

Piedmont continues to clear important hurdles on its path to production. Whilst expanding the size of its resource would be instrumental in increasing the mine lifespan (>30 years), which will further help amortize the capex cost of the concentrator and conversion plant over a greater production life and tonnage, **the timing and terms of the company's offtake and partnership agreements are the most critical next steps**. With that said, if Piedmont were to **successfully reach a 40 MT – 50 MT resource, which we believe it will through limited additional land acquisitions, its value as a strategic American asset would be further enhanced**, **strengthening its negotiating position with the right counterparties.**

Piedmont is therefore advised to finalise a number of **milestones in 2019.** These follow below:

- Continue Phase 4 drilling and expand the company's land position
- Complete applications and secure the necessary permits to commence mining and processing operations
- Accelerate development of the company's lithium chemical plant including metallurgical test work
- Formalize dialogue with a number of prospective strategic, technical and offtake partners

The company successfully raised A$21m through an institutional placement in July 2019, where Fidelity International and Australian Super were the two main subscribers. This raise has removed the risk of a share overhang and has secured Piedmont the funds both to complete the feasibility study and continue to option more land for potential acquisition. The quantum of the capital raise should indeed be sufficient to reach final investment decision.

Piedmont's updated Scoping Study reflects an increased capex estimate of $147.9m, excluding working capital. This is in line with my previous estimate of $150m. The $20m working capital facility is a welcome addition and will be needed. Given Piedmont's location and access to infrastructure, the company is unlikely to face major unexpected cost problems for either the concentrator or the conversion plant. Our model provides for cost

overruns and at $24,500/t could potentially prove conservative. The probable cost overruns relate to pre-mine development and post-ramp modifications to equipment and possible minor flowsheet adjustments.

Should there be a successful execution of planned integrated chemical production models, the estimated fair value for Piedmont is therefore substantially higher than today's share price (estimated fair value A$0.66, upside scenario A$0.76). Based on recent M&A activity in the sector involving Kidman and Wodgina, Piedmont's take over valuation is **approximately US$200m** or approximately four times the current price.

Land acquisitions are key for Piedmont, its successful execution of project milestones and the expansion of its resource to 40 MT – 50 MT which would thereby extend the SC6.0 mine life to ~35 years and the chemical plant to 30+ years. Ultimately, this increases the strategic appeal to lithium majors and other interested parties as a potential acquisition.

Given that the current availability of high specification chemicals is limited with respect to suppliers and geographic locations, buyers have yet to stress sustainability to date. This will continue to change as OEMs strive to be carbon neutral in the future. The lithium-ion battery supply chain will face scrutiny and there is a high probability that either incentives or penalties will be levied across the entire supply chain. Considering the possible battery supply chain alternatives for the US, Piedmont is well placed to benefit greatly from future incentive / penalty schemes.

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