FOSTER STOCKBROKING

TALKING POINT

Pilbara Minerals Ltd

2 November 2015

Pilbara Minerals Ltd (PLS.ASX)

Second largest hard rock lithium resource globally targeting fast growing battery market.

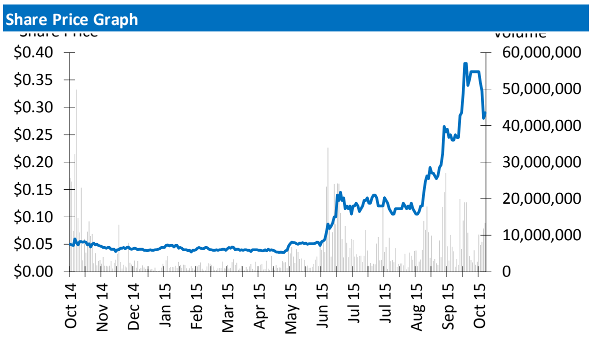
Rating		SPEC BUY
Previous		**N/A**
Price Target ($)		**N/A**
Previous		**N/A**
Share Price ($)		**$0.30**
52 week low - high ($)		**0.03 - 0.41**
Risk		High

Capital Structure		
Shares on issue (m)		
	FPO	726.0
	Options	113.9
	Total	**839.9**
Market Cap ($m)		
	Undiluted	214.2
	Diluted	**247.8**
Convertible notes (A$m)		**5.9**
Cash (A$m)		**5.0**
EV (A$m)		
	Undiluted	209.2
	Diluted	**242.8**
Av 3mth daily volume ('000)		13,343

Board	
Tony Leibowitz	Chairman
Neil Biddle	Executive Director
John Young	Technical Director
Robert Adamson	Non Executive Director

Substantial Shareholders (diluted)	
Board and management	10%

Share Price Graph



Talking Point mostly discusses stocks for which Foster Stockbroking does not provide formal research coverage. It combines both the dealing desk's market view and basic research analysis**.** The aim is to offer clients additional investment ideas that lie outside the firm's universe of formally covered stocks. However in some instances ***Talking Point*** will also discuss the latter, mostly to reiterate recent research.

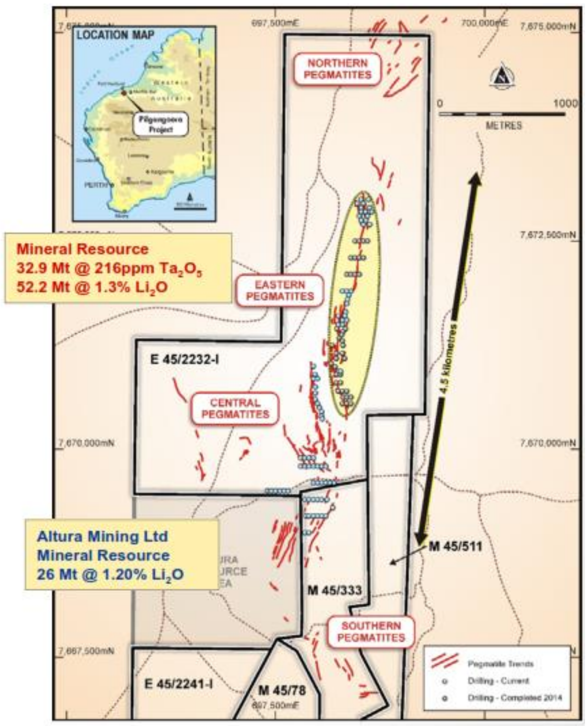
INVESTMENT THESIS:

- Pilbara Minerals Ltd (PLS) is focused on assets in the Pilbara of Western Australia within 100km of Port Hedland, and is set to make the transition from being an explorer to a producer, with the commencement of tantalum production at the company's 'starter' project, Tabba Tabba (PLS – 100%).
- The company's flagship lithium project is Pilgangoora (PLS – 100% ownership), which is host to a current resource of 52.2Mt @ 1.28% Li_2O containing 668,000 tonnes of lithium oxide, and 32.9Mt @ 0.02% tantalite containing 15.7 million pounds. At present, PLS's spodumene resource is the second largest in the world, behind only Talison's 120Mt Greenbushes Project in WA's south (which was acquired for almost $1b by the Chinese within 12 months of relisting on the TSX in late 2012). Pilbara has set an exploration target of 80-90Mt and is aggressively drilling at present.
- A Feasibility Study for Pilgangoora is currently underway and expected to be released in H1 CY16 prior to project financing/development. Whilst project economics are somewhat difficult to estimate, we expect a likely capital cost of ~A$100m based upon Altura Mining Ltd's (AJM.ASX) nearby project. If this were to be the case, PLS's current +$200m market cap reduces the funding risk substantially compared with many of the other aspiring producers. In addition, given the size of PLS's resource and demand for product, we expect there will be no shortage of offtake parties interested in assisting with finance.
- The forecast very strong demand for lithium is largely attributed to the battery market, with lithium ion battery demand growth in MWh expected to be in the region of 11% pa between 2014 and 2025. This estimate is based upon the growing acknowledgement/expectation that electric cars (e.g Teslas) will be widely adopted. There is potential for this battery demand estimate to be conservative, because the forecasts are largely driven by electric vehicle demand, with little contribution from the installation of power storage batteries in the home or in the grid.
- When compared to ASX-listed peers on the basis of an adjusted EV/t of Li_2O in resource, PLS at A$502/t is trading at an 8% premium to its Australian peers excluding General Mining, to which it is trading at a 56% discount and Galaxy (25% premium). However, when we take into account the higher grade, tantalite byproduct credits and the expectation that the resource will increase from 52Mt to 80-90Mt, PLS represents a compelling valuation opportunity on a relative basis. In addition, we consider the funding risk to be far lower for PLS given the current market capitalization.
- *This commentary is designed as an information piece. We hope to complete a thorough valuation of the company in due course that will result in a target price.*

COMPANY OVERVIEW

- PLS is focused on assets in the Pilbara of Western Australia, and will move from being a explorer to a producer, with the start of production at Tabba Tabba tantalum project.
- Tabba Tabba (PLS – 100%) is located ~75km by road from Port Hedland, and PLS's flagship Pilgangoora Project is located ~50km from Tabba Tabba.
- The current Indicated and Inferred resource estimate for Pilgangoora(PLS – 100%) sits at 52.2Mt @ 1.28% Li_2O for 668,000 tonnes of lithium oxide, as well as 32.9Mt at 0.02% tantalite for 15.7 million pounds.
- Major drilling campaign underway (circa 11,000 RC) to expand the resource and convert inferred resources to indicated category.
- At present, the spodumene resource is the second largest in the world, behind only Talison Lithium's 120Mt Greenbushes project in WA's south. PLS has set an exploration target of 80-90Mt @ 1.3-1.5% Li_2O for Pilgangoora.
- Initial production will come from the Tabba Tabba tantalum project, starting in December 2015. Whilst the project mine life is a short 18 months, there exists the potential for extension of up to 5 years via the nearby Strelley deposit. The company expects to generate ~A$18m EBITDA in the first 12 months of operations at Tabba Tabba. The sales offtake contract with Global Advanced Metals (GAM) is at a fixed price so any risk is entirely operational. The plant at Tabba Tabba was built for a cost of A$8M and has largely been fully incurred.

Figure 1: Project Location



Source: Pilbara Minerals Ltd

- PLS is completing a Feasibility Study that will detail the expected costs and economics of a development at Pilgangoora. The mine and process plant is estimated to cost ~A$100m, a manageable amount for a company of PLS's new-found size. The company will also hope to meet some of the construction costs using cash flow from the nearby Tabba Tabba tantalum mine.

- PLS has signed MoUs with major offtake partners based in China, Japan, South Korea, Europe and North America covering >200% of projected spodumene production at Pilgangoora. These MoUs allow for the parties to begin non-exclusive, confidential discussions over Pilgangoora offtake. It's no surprise the level of interest being shown for PLS's product given the owners of the Greenbushes mine recently announced they will not be selling their product to any other parties from 2017 onwards. GAM has first right of refusal to purchase all tantalite from Pilgangoora and have indicated they will be exercising that right. First production at Pilgangoora is expected in 2017.

- Demand for the Pilgangoora product is likely to come from both the ceramics and battery markets as the product's low iron content opens doors for higher demand. The glass and ceramics market is likely to be a niche option for the company, allowing it to cater to smaller glass manufacturers chasing specific concentrates at higher costs. In addition, the company will produce a bulk product for the lithium battery market.

LITHIUM INDUSTRY DYNAMICS

- Supply of lithium in all forms outside China is dominated by three major vertically integrated producers: Rockwood/Albemarle Corporation, FMC Corporation (both from the USA), and SQM of Chile. All appear to enjoy EBITDA margins of around 40%. In China there are a number of producers with Tainqi Group and Ganfeng being two of the larger players.

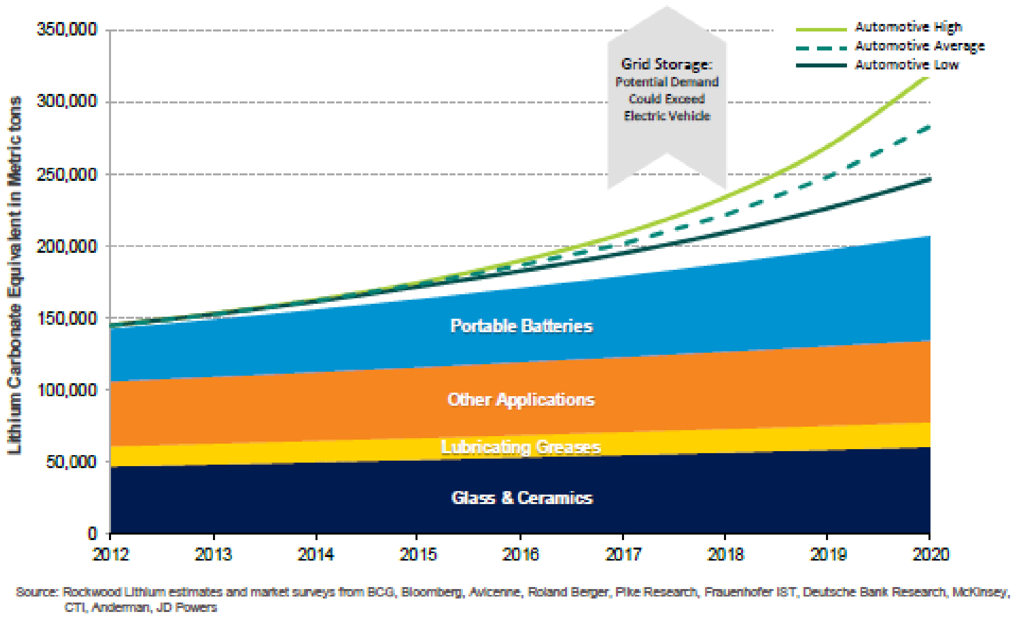
- Supply growth has been restricted in recent years, in turn driving a considerable amount of corporate activity. The Talison Lithium mine was acquired for almost $1b within 12 months of relisting on the TSX by Tianqi and Rockwood/Albemarle. Tianqi also purchased the lithium carbonate plant built by Galaxy Resources in China for overA$200M. Ganfeng has bought into Neometals Mt Marion project for US$1M/1%, ie A$418/t Li_2O, and has the option to buy more at US$1.3M/1% or A$543/t.

- The major limitation on supply growth has been the cooling effect of the Chilean Government's attitude to approving new brine based projects. As at mid-2015, Rockwood/Albemarle was still waiting for approval for the expansion of its Salar de Atacama facility, which it first applied for in May 2009. The National Lithium Commission was set up in June 2014, and presented its views to the President of Chile in early 2015. The President has yet to comment.

- PLS will be in a class of lithium producers selling 'spodumene', a hard rock high purity lithium ore which can be sold as is, or converted into downstream products like lithium 'carbonate' or 'hydroxide'. Global production of lithium is currently from either brines (salt lakes) or spodumene (hard rock mines). Brine operations are higher capex projects, but once in operation, they represent the bottom half of the cost curve for production of lithium carbonate. However, Neometals believes that spodumene can be converted into lithium hydroxide substantially cheaper than the brine – carbonate – hydroxide path. This means that the lithium market may bifurcate, with separate hydroxide and carbonate cost curves, and possibly a third for direct sale of spodumene.

- The forecast very strong demand for lithium is largely attributed to the battery market, with lithium ion battery demand growth in MWh expected to be in the region of 11% pa between 2014 and 2025. This growth estimate is based upon the growing acknowledgement/expectation that electric cars (e.g Teslas) will be widely adopted. There is potential for that demand to be conservative, because the forecasts are largely driven by electric vehicle demand, with very little contribution from the installation of power storage batteries in the home or in the grid.

Figure 2: Lithium Demand forecast through to 2020



Source: Rockwood/Albemarle Investor Day Briefing September 2015

PEER COMPARABLE ANALYSIS

COMPELLING VALUATION GIVEN RESOURCE SIZE, GRADE AND GROWTH

- When compared to ASX-listed peers on the basis of an adjusted EV/t of Li_2O in resource, PLS at A$502/t is trading at an 8 – 25% premium to its peers excluding General Mining. However, when we take into account the higher grade, tantalite byproduct credits and the expectation that the resource will increase materially from 52Mt to 80-90Mt, PLS represents a compelling valuation opportunity on a relative basis. In addition, we consider the funding risk to be far lower for PLS given the current market cap vs the estimated capex, the interest from offtake groups, and the scale of resource which carries strategic appeal.

Figure 3: Peer Analysis

	General Mining	Galaxy Resources	Neo Metals	Altura Mining	Pilbara Minerals
	GMM	GXY	NMT	AJM	PLS
Share Price A$/sh	0.170	0.077	0.180	0.051	0.295
Shares on Issue 30 Sep 2015 M	223.61	1103.18	509.04	838.71	702.24
Convertible Notes A$M			2.00		5.86
Performance Rights M		37.10	0.00	8.10	
Options on Issue M	25.50	37.00	0.00	184.89	115.75
Option Strike A$/sh	0.10	0.05	0.00	0.02	0.06
Diluted Capital M	249.11	1177.28	559.04	1031.71	837.86
Diluted Market Cap. A$M	42.35	90.65	100.63	52.62	247.17
As at 30th Sep 2015					
Current Debt A$M	0.00	4.45	0.00	0.36	0.00
Current Cash A$M	2.76	44.13	34.03	1.22	5.11
Cash from Option Exercise A$M	2.49	1.71	0.00	3.70	6.69
EV A$M	37.10	49.26	66.60	48.06	235.37
Capex to Acquire/Complete the Project or Sale Proceeds(-ive) A$M	**25.00**	**-16.00**		96.30	100.00
Market value of Li Business at startup A$M	62.10	33.26	66.60	144.36	335.37
Adj. EV A$/t Li_2O Resource					
Aust. Spodumene only	701.24	375.59	458.12	461.62	501.93
Global Li_2O Resources		156.54			
Project	Mt Cattlin	Mt Cattlin	Mt Marion	Pilgangora	Pilgangora
Interest in Project	**50.0%**	**50.0%**	**45.0%**	100.0%	100.0%
Resource Mt	16.4	16.4	23.24	26.06	52.2
Grade Li_2O %	1.08%	1.08%	1.39%	1.20%	1.28%
Contained Li_2O Mt	0.177	0.177	0.323	0.313	0.668
Other Assets Cont. Li_2O	0.000	3.211	0.000	0.000	0.000

Source: Company announcement, Foster Stockbroking

- The peer lithium companies are not easy to compare, because of their differing stages of development, and some are either in the process of acquiring or selling parts of projects. Most companies also have options and convertible notes outstanding. We make the following comments below:
    - The higher grades seen at PLS's Pilgangoora deposit should drive lower operating costs. At present, we have 2011 DFS data for Mt Cattlin, and a short period of an underperforming operation. However, there has been little meaningful data released by operator Mineral Resources on Mt Marion, and Altura Mining has only published scoping study level costings, which on first pass look low compared to Mt Cattlin. PLS is yet to publish any cost data, but a feasibility study is underway, for delivery in 2016.
    - Tantalum oxide concentrate is a commercial byproduct at PLS's and GMM's projects, but missing from the other two. On our estimates, the benefit to PLS could be in the order of ~A$100/t spodumene concentrate, compared to a selling price of US$450/t to US$650/t.
    - The exploration target at Pilgangoora of 80-90Mt at 1.3-1.5% Li_2O would improve PLS's metrics dramatically. Assuming no change in grade, the adjusted EV/t would drop from A$502/t to ~A$310/t, implying a share price of A$0.53/sh to match Altura's current share price, with further upside if grade is improved as well.
    - PLS has an initial estimated capital cost to market capitalization ratio of 40%, assuming an initial capital cost similar to Altura (~A$100m). On the same metric, Altura has a ratio of 183%, and General Mining has a ratio of 59%. In the case of General Mining the initial expenditure is the acquisition cost. Galaxy and Neometals have no initial capital obligation, with capital being paid for by General Mining and Mineral Resources respectively.
    - All the peers have additional assets apart from their lithium projects, as does PLS. We assume that the additional assets balance out. Neometals has its proposed lithium hydroxide project, General Mining has the James Bay lithium project it can buy into, Altura has its Indonesian coal interests, plus a separate tantalum project, and PLS has Tabba Tabba.
    - Galaxy also has 100% of the Sala de Vida lithium project (capex US$356M) and the James Bay hard rock lithium project. If these are included in the Li_2O base, the Adjusted EV/t Li_2O falls to a very low A$156.54/t. The capex for this project is 5.1x the current diluted market capitalization, and the experience of Orocobre suggests that a number of years of operating costs in working capital are required to fund the long ramp up period.
- PLS has an adjusted EV/Li_2O of A$502/t, compared to Altura at A$462/t, Neometals at A$458/t, and General Mining at A$701/t. However, PLS has a grade of 1.3% (and ROM will be +1.5%) vs 1.08% at General Mining's Mt Cattlin, and certainly more exploration upside than Altura, given the Pilgangoora exploration target of 80-90Mt at 1.3-1.5% Li2O.

- The EV has been adjusted for capital to be spent to complete construction (Altura, Pilbara) or finish buying the project (GMM to either 50% or 100%). Neometals has sold down its interest from 60% to 45%, and its partners have the option to buy more, which could reduce NMT's interest to 13.8% in the Mt Marion mine. Galaxy has agreed to sell 50% of Mt Cattlin to General Mining for A$25M (A$7M to be invested into the project and three payments of A$6M each to Galaxy).

- The table above calculates an adjusted EV for each company, for its respective interest in its main project on a comparable basis, after acquisition and capex. In the case of PLS, we have estimated the required capex to be A$100M, similar to Altura's scoping study estimate.

- We believe adjusted EV per contained Li2O in resource is a valid basis of comparison, in the absence of sufficient data to construct earnings models and NPVs.

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