

Sayona Mining

Outperform

Completes A\$200m placement

Key Points

- Sayona Mining has completed an A\$200m fully underwritten placement at A\$0.18/share.
- Proceeds to fund working capital requirements during production ramp up at Sayona Québec, plus higher capex and exploration.
- The size of the placement was a surprise to us and drives material cuts to our earnings due to the increased equity dilution.

• **Equity raising a surprise:** SYA has completed a A\$200m equity raising. We had not factored in additional equity in our base case, as we assumed SYA's existing cash balance would cover working capital requirements during production ramp up at Sayona Québec (Abitibi Hub).

• **Increasing capex and working capital assumptions:** We have increased our working capital build and ramp up capex assumptions for Sayona Québec to reflect guidance released with the uses of funds from the placement. Our group exploration forecasts also increase marginally to account for additional exploration and project study expenditure.

• **Ramp up pace a key catalyst:** SYA has reiterated its guidance for 1HFY24 spodumene shipments of 85-105kt. Our forecast remains unchanged at 73kt, 14% below the bottom end of guidance. We note that Piedmont Lithium has the rights to the first 56kt produced under the terms of the offtake agreement in the 1HFY24.

• **Onerous offtake agreement impacts cash flow:** The offtake agreement with Piedmont Lithium has a capped price of US\$900/t (on a 6.0% Li₂O equivalent basis), delivered to North Carolina. We have adjusted our realised price for the offtake to reflect our product grade assumption of 5.4% Li₂O, ~10% lower than benchmark grade.

Earnings changes: Incorporating the placement and increases in our capex, working capital and exploration spend assumptions drives material cuts to earnings. Our FY23e loss falls marginally while our FY24-FY28 earnings estimates decline 17-25%.

Valuation: The material cut in our earnings forecasts drives a 17% cut to our price target from A\$0.30 to A\$0.25. Our price target is calculated using a 50/50 blend of 4.0x forward EV/Ebitda and 1.0x NPV.

Catalyst: Updates on the production ramp up at Sayona Québec and development progress for Moblan present key near-term catalysts for SYA.

Investment Thesis and Recommendation

Maintain Outperform: The capital raising was a surprise, given SYA was on the cusp of first production and cash flow at Sayona Québec. The transformation from developer to producer could see SYA start to generate strong cash flow in FY24, despite the onerous offtake agreement with Piedmont Lithium.

Metals & Mining Australia

SYA AU	Outperform
Price (at 30 May 2023)	AUD0.18
12-month target	AUD0.25
12 month TSR (%)	35.1
Volatility Index	Very High
Market Cap (Local) (m)	1,889
Market Cap (USD) (m)	1,235
30-day avg turnover (AUD)(m)	6.6

Investment Fundamentals

Year end 30 Jun	2022A	2023E	2024E	2025E
Revenue (m)	0.0	0.0	739.8	800.3
EBITDA (m)	(18.2)	(36.6)	551.3	580.7
EBITDA growth (%)	(289.3)	(101.4)	NM	5.3
EBIT (m)	(18.2)	(36.9)	519.8	543.6
EBIT growth (%)	(289.2)	(102.1)	NM	4.6
Reported profit (m)	83.7	(37.4)	346.5	268.8
Adjusted profit (m)	(19.1)	(37.4)	346.5	268.8
EPS adj (¢)	(0.3)	(0.4)	3.4	2.6
EPS adj growth (%)	(109.1)	(46.3)	NM	(22.4)
PER adj (x)	NM	NM	5.5	7.1
PER rel (x)	NM	NM	0.4	0.6
Total DPS (¢)	0.0	0.0	0.0	0.0
Total div yield (%)	0.0	0.0	0.0	0.0
FFO (c)	0.0	0.0	0.0	0.0
ROA (%)	(5.0)	(4.8)	47.6	37.8
ROE (%)	(6.7)	(5.6)	33.6	19.6
EV/EBITDA (x)	(75.0)	(56.8)	3.8	3.6
Net debt/equity (x)	(28.2)	(18.2)	(21.9)	(6.1)
P/BV (x)	2.6	2.3	1.5	1.3

SYA AU rel ASX 100 performance, & rec history



Source: FactSet, Macquarie Research, May 2023 (all figures in AUD unless noted, TP in AUD)

We had not factored in an additional equity raising in our estimates

Placement to raise A\$200m was unexpected

- SYA has completed an A\$200m fully underwritten placement to raise A\$200m before costs. The capital raising was completed at A\$0.18/share, a 14.3% discount to the previous closing price and an 18.8% discount to five day VWAP. We note that A\$31m of the placement will require shareholder approval, set to occur on 14 July 2023.
- The placement was driven by a number of funding requirements. SYA indicated that A\$65m would be allocated to additional capital costs for the Abitibi Hub (Sayona Québec) including spending on the initial study work for the downstream lithium carbonate plant upgrade and integration. We have increased our capex assumptions for FY24 to reflect the increased spend at the Abitibi Hub.
- A further A\$40m was allocated to the Northern Hub (Moblan project) to accelerate study work. We already incorporate a development of the Moblan project in our forecast for SYA. Our pre-production capital cost assumption increases 11% to C\$500m to account for the additional study expenditure outlined in the uses of funds.
- We have increased our group exploration spend from A\$50m to A\$60m for FY24e and FY25e to reflect a likely higher spend in Canada and the new spend on SYA's portfolio of lithium and gold exploration projects in Western Australia.

Figure 1 - Sources and uses of funds

Sources of Funds	A\$m	Uses of Funds	A\$m
Placement	200	Abitibi Hub - Capex	65
		Northern Hub - Studies	40
		Western Australia Exploration	5
		Working Capital	90
Total	200	Total	200

Source: SYA, Macquarie Research, May 2023

Earnings decline 17-25% for FY24-FY28e, while our price target falls 17%

Material cuts to earnings and price target

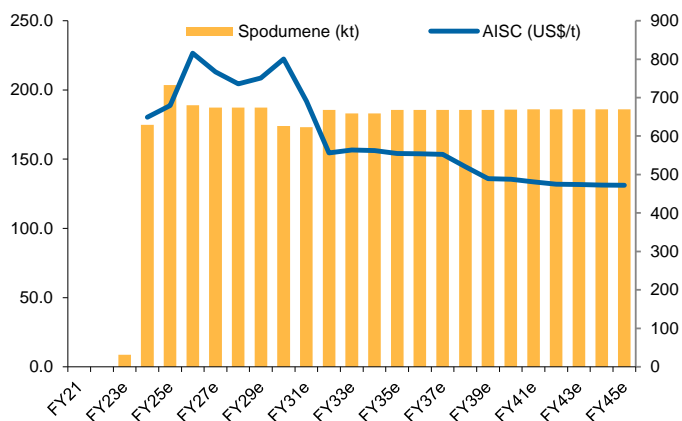
- Incorporating the placement and increases in our capex, working capital and exploration spend assumptions drives material cuts to earnings. Our FY23e loss falls marginally while our FY24-FY28 earnings estimates decline 17-25%, reflecting the increased equity dilution and adjustments to our offtake pricing assumption to factor in a lower product grade. Our FY29 and FY30 earnings forecasts fall 14% and 16%, respectively.
- The material cuts to our earnings forecasts and placement dilution drive a 17% cut in our price target from A\$0.30 to A\$0.25.

Figure 2 - Material cuts to earnings and price target

Y/E June	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e	Price Target
Earnings (A¢) - old	(0.4)	4.1	3.2	2.4	2.9	5.2	0.30
Earnings (A¢) - new	(0.4)	3.4	2.6	1.8	2.2	4.2	0.25
Change	1%	(17%)	(19%)	(25%)	(25%)	(18%)	(17%)

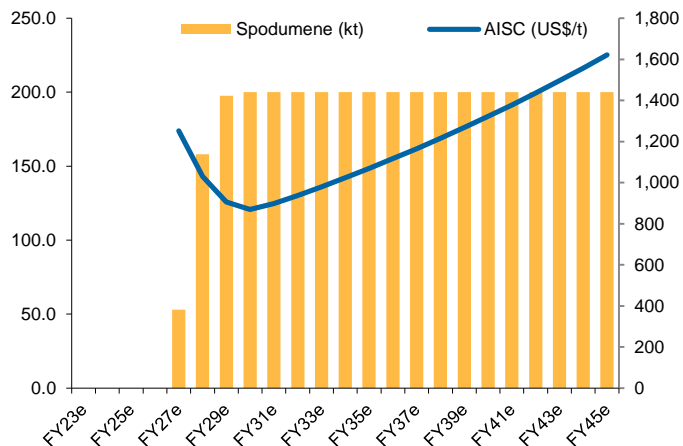
Source: Macquarie Research, May 2023

Figure 3 - Sayona Québec Carbonate production and costs



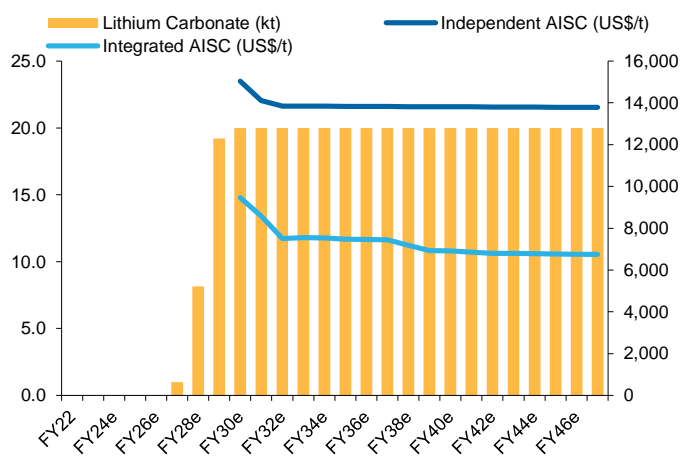
Source: SYA, Macquarie Research, May 2023

Figure 4 - Moblan spodumene production and costs



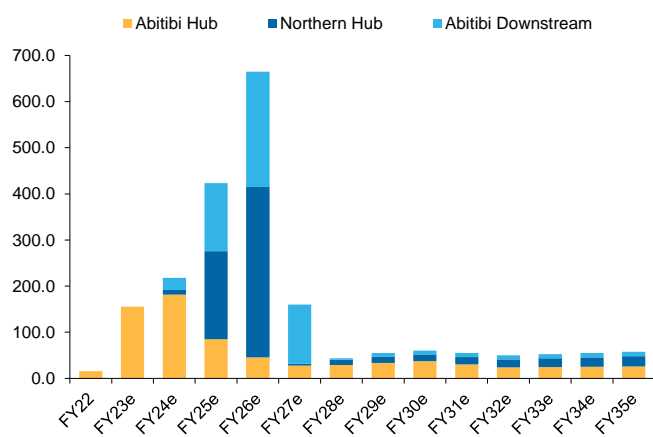
Source: SYA, Macquarie Research, May 2023

Figure 5 - Sayona Québec Carbonate production and costs



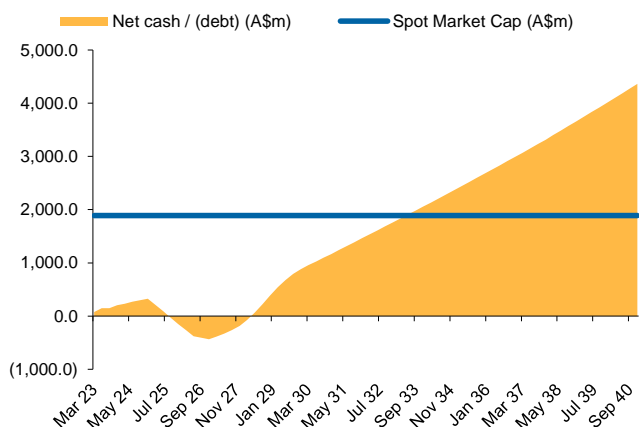
Source: SYA, Macquarie Research, May 2023

Figure 6 - Capex by project (A\$m)



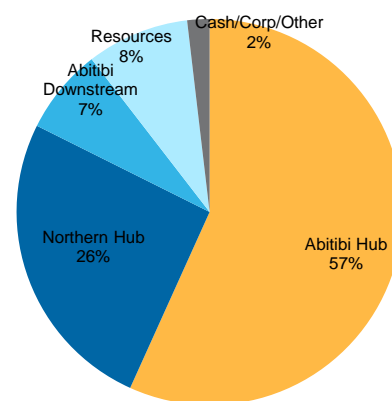
Source: SYA, Macquarie Research, May 2023

Figure 7 - Net cash build vs Market Cap



Source: SYA, Macquarie Research, May 2023

Figure 8 - NPV by project (A\$m)



Source: SYA, Macquarie Research, May 2023

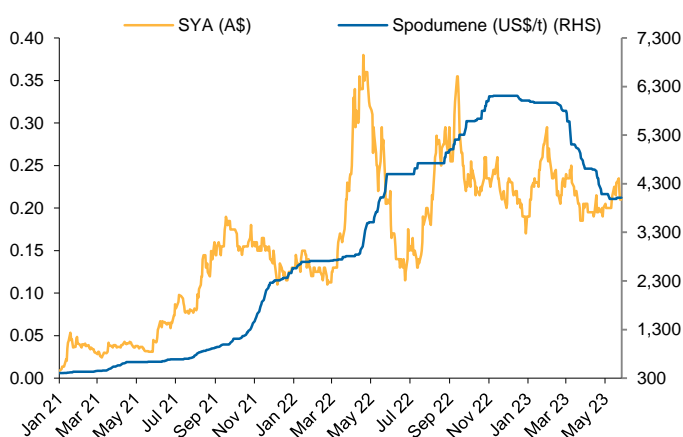
Key Risks to Investment Thesis

Movements in spodumene prices present the most material risk to our short, medium and long-term earnings forecasts and valuation for SYA.

The pace of the production ramp up at Sayona Québec (Abitibi Hub) presents a material risk to our near-term earnings forecasts for SYA. We note that the project has an onerous offtake agreement that caps spodumene sales at US \$900/t for the first 113ktpa of spodumene produced each year.

For a detailed summary of the risks to our view relating to Piedmont Lithium (valuation: 50/50 Blend of 4.0x EV/Ebitda and 1.0x NPV) (PLL AU/PLL US), see our latest report.

Figure 10 - SYA share price vs spodumene price

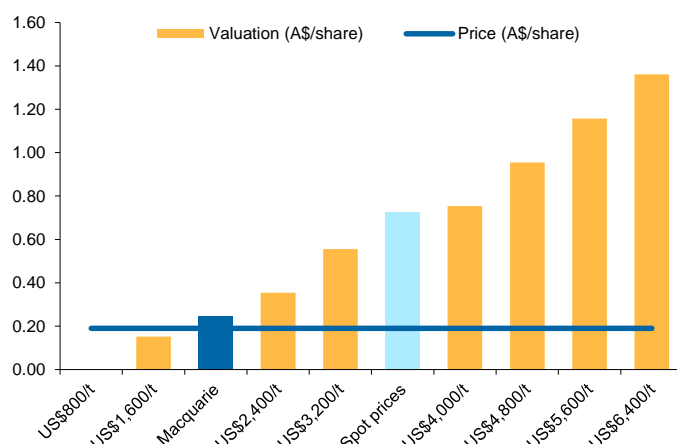


Source: Bloomberg, Macquarie Research, May 2023

Company Description

Sayona Mining (SYA) owns 75% of Sayona Québec, a project previously known as North American Lithium (NAL). The project is production ready with the operation having last produced spodumene concentrate in 2019. SYA plans to develop the nearby Authier deposit as a second ore source over time to improve product quality. The Sayona Québec operation also contains partially constructed downstream infrastructure that could enable lithium carbonate to be produced on site. A PFS is currently underway to assess the potential of the downstream project, which has a capacity of 22ktpa of lithium carbonate.

Figure 11 - SYA NPV at various spodumene prices



Source: SYA, Bloomberg, Macquarie Research, May 2023

Key Quant Pick

The quant model currently holds a reasonably negative view on Sayona Mining. The strongest style exposure is Profitability, indicating this stock is efficiently converting investments to earnings; proxied by ratios like ROE or ROA. The weakest style exposure is Quality, indicating this stock is likely to have a weaker and less stable underlying earnings stream.

Macquarie Alpha Model: Key rankings

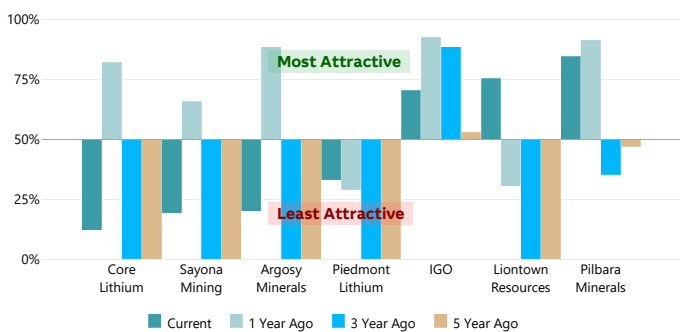
The Macquarie Quant's flagship Alpha model is a dynamic multi-factor model based on a staple of quant factors such as value, momentum, revisions, quality, and risk.

	Global	Market (Country)	Sector
	Whole Universe	Australia & NZ	Metals & Mining
Macquarie Alpha Model	14484/17563	341/422	529/666
Fundamental (Consensus) *	2487/17563	30/422	114/666

* based on Total Shareholder Return = Consensus Price target / Current Price

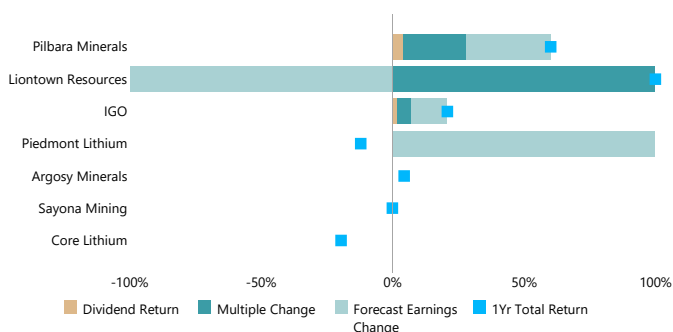
Current and Historical Alpha Model Rank

The chart shows the Macquarie Alpha model ranking against the company's peers and over recent history.



Drivers of Stock Return

Breakdown of 1-year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



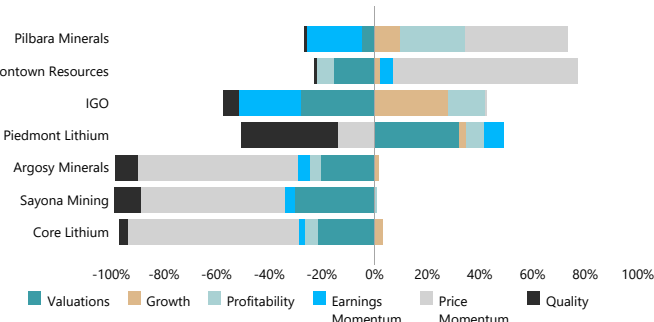
Alpha Model Decomposition

The Macquarie Alpha is decomposed into its sector and market relative factor & styles exposures (a higher/better percentile is coded in green, whilst lower in red).

Factors / Styles	Percentile relative to		Core factors in definition
	sectors (/666)	market (/422)	
ALPHA	21%	19%	See all the styles below
VALUE	20%	24%	Book, CF, Yield, Earnings Multiples
ANALYST	51%	38%	Revisions (Earnings, Recommendations)
MOMENTUM	27%	37%	Price Momentum
GROWTH	0%	0%	EPS, Sales (Forecast, Historic)
PROFITABILITY	78%	76%	ROE, Margin, Asset Turnover
QUALITY	6%	10%	Accruals, Earn Stability, Cash Conversion
CAPITAL	7%	9%	Investment/Capex, Net share issuance
LIQUIDITY	33%	7%	Size, Turnover, Analyst Coverage
RISK	24%	31%	Beta, Volatility, Earnings Certainty, Leverage
TECHNICAL	71%	73%	MACD, RSI, Bollinger, Williams R, etc

Factors driving the Alpha Model vs peers

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall Alpha score.



Macquarie Style Returns over last year

Recent performance to Macquarie style factors

	Monthly Factor Long-Short Returns for												Last 5 Years (ann)	Last 10 Years (ann)
	Jun - 23	May - 23	Apr - 23	Mar - 23	Feb - 23	Jan - 23	Dec - 22	Nov - 22	Oct - 22	Sep - 22	Aug - 22	Jul - 22		
Australia & NZ														
ALPHA	-3%	0%	0%	-1%	-1%	-3%	0%	4%	6%	-8%	-1%	2%	-5%	0%
VALUE	-3%	-5%	-1%	-2%	1%	2%	-2%	4%	6%	-10%	5%	5%	0%	-3%
ANALYST	0%	-1%	0%	0%	-3%	-5%	-3%	5%	5%	0%	1%	-1%	9%	6%
MOMENTUM	-3%	1%	-4%	-4%	-2%	0%	-3%	2%	5%	-8%	3%	0%	-1.2%	-2%
GROWTH	-2%	0%	-3%	-4%	0%	-6%	3%	-1%	5%	0%	1%	-1%	-9%	-2%
PROFITABILITY	-4%	3%	-5%	4%	-3%	5%	-2%	4%	-3%	2%	2%	-1%	3%	3%
QUALITY	-2%	-1%	0%	-2%	-1%	2%	-6%	0%	-2%	-1%	6%	0%	-1.2%	-8%
CAPITAL	-1%	4%	-3%	-2%	0%	1%	1%	-3%	1%	-3%	1%	2%	-2%	0%
LIQUIDITY	0%	1%	-9%	0%	2%	4%	1%	2%	1%	-5%	-1%	4%	-3%	-1%
RISK	-1%	-4%	6%	-5%	0%	-2%	-3%	1%	0%	-6%	2%	-1%	1%	-1%
TECHNICAL	3%	4%	1%	3%	-1%	8%	4%	0%	3%	-3%	9%	3%	12%	11%

Source (all charts): FactSet, Refinitiv, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative Team: maccapetitiesresearchquantglobal@macquarie.com. Explanation for items on this page can be found at <https://www.macquarieinsights.com/rp/d/rp/OTUyMzg1>

Important Disclosures

Recommendation definitions	Volatility index definition	Financial definitions
<p>Macquarie – Asia and USA Outperform – expected return >10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie – Australia/New Zealand Outperform – expected return >10% Neutral – expected return from 0% to 10% Underperform – expected return <0%</p> <p>During periods of share price volatility, recommendations and target prices may occasionally and temporarily be inconsistent with the above definitions.</p> <p>Recommendations – 12 months Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>This is calculated from the volatility of historical price movements.</p> <p>Very high – highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.</p> <p>High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.</p> <p>Medium – stock should be expected to move up or down at least 25–40% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year.</p> <p>* Applicable to select stocks in Asia/Australia/NZ</p> <p>Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk</p>	<p>All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests</p> <p>EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit /average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>

Recommendation proportions for quarter ending 31 March 2023

	AU/NZ	Asia	USA	
Outperform	56.13%	64.77%	64.49%	(for global coverage by Macquarie, 2.51% of stocks followed are investment banking clients)
Neutral	37.74%	23.98%	32.71%	(for global coverage by Macquarie, 1.83% of stocks followed are investment banking clients)
Underperform	6.13%	11.26%	2.80%	(for global coverage by Macquarie, 0.00% of stocks followed are investment banking clients)

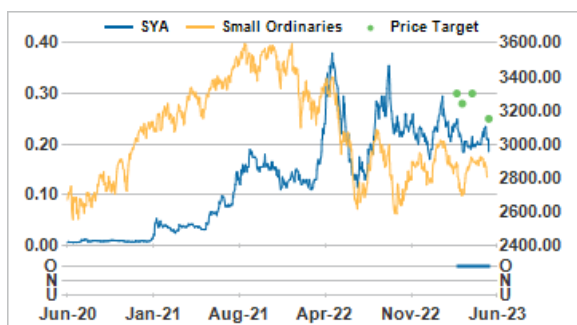
Company-Specific Disclosures

Company Name	Disclosure
<p>Sayona Mining (SYA AU) Outperform 12-month target: AUD0.25 - 50/50 Blend of 4.0x EV/Ebitda and NPV Valuation: AUD 0.25 - DCF (WACC 9.4%, beta 1.4, ERP 5.0%, RFR 3.0%, TGR 2.6%) Price: AUD0.18</p>	<p>Macquarie Group Limited together with its affiliates owns a net long of 0.5% or more of the equity securities of Sayona Mining Ltd Macquarie Group Limited together with its affiliates beneficially owns 1% or more of the equity securities of Sayona Mining Ltd. A Macquarie analyst involved with the preparation of this research has, in the past 12 months, visited material operations of Sayona Mining Ltd. The company furnished local transportation as part of this site visit, which was authorized in adherence with Macquarie policy requirements</p>
<p>Piedmont Lithium (PLL AU) Outperform 12-month target:AUD2.00 - 50/50 Blend of 4.0x EV/Ebitda and 1.0x NPV Valuation: AUD 2.48 - DCF (WACC 9.4%, beta 1.5, ERP 5.0%, RFR 3.0%, TGR 2.6%) Price:AUD0.84</p>	<p>A Macquarie analyst involved with the preparation of this research has, in the past 12 months, visited material operations of Piedmont Lithium Inc.</p>
<p>Piedmont Lithium (PLL US) Outperform 12-month target:USD133.00 Price:USD55.33</p>	<p>A Macquarie analyst involved with the preparation of this research has, in the past 12 months, visited material operations of Piedmont Lithium Inc. The company furnished local transportation as part of this site visit, which was authorized in adherence with Macquarie policy requirements</p>

A reference to "Macquarie" is a reference to the entity within the Macquarie Group of companies (comprising Macquarie Group Limited and its worldwide affiliates and subsidiaries) that is relevant to this disclosure. Important disclosure information regarding the subject companies covered in this report is available publicly at www.macquarie.com/research/disclosures. Clients receiving this report can additionally access previous recommendations (from the year prior to publication of this report) issued by this report's author at <https://www.macquarieinsights.com>.

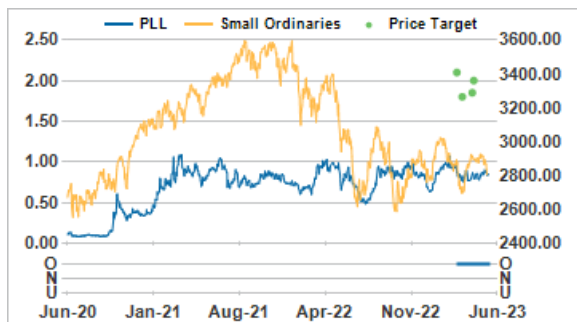
Recommendation history

Company name	Date	Recommendation	Target price
Sayona Mining (SYA AU)	30-May-2023	Outperform	AUD 0.25
	17-Apr-2023	Outperform	AUD 0.30
	22-Mar-2023	Outperform	AUD 0.28



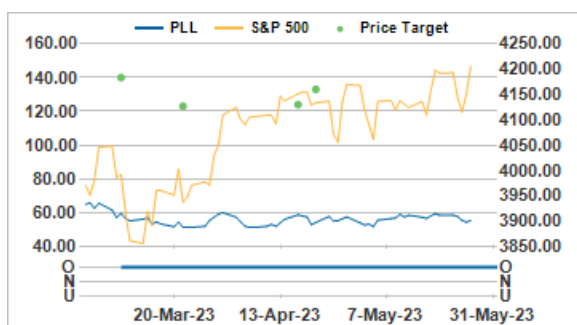
8-Mar-2023	Outperform	AUD 0.30
------------	------------	----------

Piedmont Lithium (PLL AU)



21-Apr-2023	Outperform	AUD 2.00
17-Apr-2023	Outperform	AUD 1.85
22-Mar-2023	Outperform	AUD 1.80
8-Mar-2023	Outperform	AUD 2.10

Piedmont Lithium (PLL US)



21-Apr-2023	Outperform	USD 133.00
17-Apr-2023	Outperform	USD 124.00
22-Mar-2023	Outperform	USD 123.00
8-Mar-2023	Outperform	USD 140.00

Analyst Certification

We hereby certify that all the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. The views were reached independently, without any attempt of influence from anyone outside of Macquarie's Research business. Any and all opinions expressed have a reasonable basis, which are the result of the exercise of due care and skill. We confirm we (the authors), our team, and our associates do not hold securities in our sector of coverage, except for holdings disclosed to Research Compliance where we have received approval to hold temporarily until we are able to dispose of the holdings, and confirm the presence of disclosure language on this research which relates to this personal holding. To the best of our knowledge, we are not in receipt of, nor have included in this report, information considered to be inside information at the time of publication. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. We acknowledge that the Analysts responsible for preparing this report receive compensation from Macquarie that is based upon various factors including Macquarie Group Ltd.'s overall revenues, a portion of which are generated by Macquarie Group's Investment Banking activities.

General disclaimers

This research has been issued by Macquarie Securities (Australia) Limited ("MSAL") ABN 58 002 832 126, AFSL 238947, a Participant of the ASX and Chi-X Australia Pty Limited. MSAL is the provider of the general advice and takes responsibility for the provision of this research. Please refer to MSAL's Financial Services Guide (FSG) for more information at <https://www.macquarie.com.au/advisers/financial-servicesguide.html>.

This research is distributed in Australia by Macquarie Equities Limited ABN 41 002 574 923 AFSL 237504 ("MEL") a Participant of the ASX. Apart from Macquarie Bank Limited ABN 46 008 583 542 ("MBL"), any MGL subsidiary noted in this research, is not an authorised deposit-taking institution for the purposes of the Banking Act 1959 (Australia) and that subsidiary's obligations do not represent deposits or other liabilities of MBL. MBL does not guarantee or otherwise provide assurance in respect of the obligations of that subsidiary, unless noted otherwise.

This research contains general advice and does not take account of your objectives, financial situation or needs. Before acting on this general advice, you should consider the appropriateness of the advice having regard to your situation. We recommend you obtain financial, legal and taxation advice before making any financial investment decision.

This research has been prepared for the use of the clients of the Macquarie Group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient, you must not use or disclose this research in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. This research is based on information obtained from sources believed to be reliable, but the Macquarie Group does not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. The Macquarie Group accepts no liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research. The Macquarie Group produces a variety of research products, recommendations contained in one type of research product may differ from recommendations contained in other types of research.

The Macquarie Group has established and implemented a conflicts policy at group level, which may be revised and updated from time to time, pursuant to regulatory requirements; which sets out how we must seek to identify and manage all material conflicts of interest. Staff involved with the preparation of research have regular interaction with companies they cover. Additionally, MGL does and seeks to do business with companies covered by research. There are robust information barriers in place to protect the independence of research's product. However, recipients of research should be aware of this potential conflict of interest. The Macquarie Group, its officers and employees may have conflicting roles in the financial products referred to in this research and, as such, may effect transactions which are not consistent with the recommendations (if any) in this research. The Macquarie Group may receive fees, brokerage or commissions for acting in those capacities and the reader should assume that this is the case. The Macquarie Group's employees or officers may provide oral or written opinions to its clients which are contrary to the opinions expressed in this research. Important disclosure information regarding the subject companies covered in this report is available at www.macquarie.com/disclosures.

MSCI disclaimers:

Where this report contains any MSCI sourced information, such information is the exclusive property of MSCI Inc. (MSCI). Without the prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI and the MSCI indexes are services marks of MSCI and its affiliates.