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Arcadium Lithium PLC (LTM)

Primer note + lithium outlook update

Recommendation

Buy (unchanged)

Price

\$8.09

Target (12 months)

\$12.10 (no previous target)

GICS Sector

Materials

Expected Return

Capital growth	50%
Dividend yield	0%
Total expected return	50%

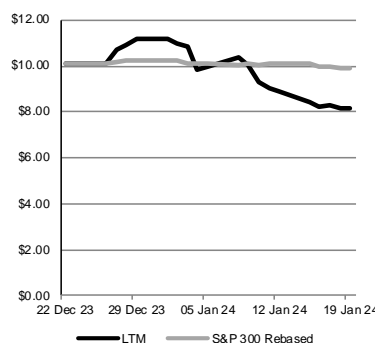
Company Data & Ratios

Enterprise value	\$7,961m
Market cap	\$8,693m
Issued capital	1,074m
Free float	98%
Avg. daily val. (52wk)	\$38.7m
12 month price range	\$7.97-\$11.57

Price Performance

	(1m)	(3m)	(12m)
Price (A\$)			
Absolute (%)			
Rel market (%)			

Absolute Price



SOURCE: IRESS

AKE-LTHM Scheme implemented; enter Arcadium Lithium

On 5 January 2024, the Allkem-Livent (AKE-LTHM) Scheme of Arrangement was implemented. The combined group is now NYSE-listed as Arcadium Lithium (NYSE: ALTM) with ASX-listed Chess Depository interests (ASX: LTM). We are not expecting a material market release from LTM until late February 2024 (10K annual report) and this will depart from AKE's previous quarterly disclosures.

This report provides a primer on LTM's key assets, our first estimate of the Group's earnings outlook and our revised lithium price outlook.

Portfolio summary: Tilt to downstream value adding

The transaction brings increased scale and a tilt to further downstream value adding:

Argentina brine assets: Producing assets Olaroz (AKE, 66.5%) and Hombre Muerto (LTHM), and currently under development Sal de Vida (AKE).

Hard rock assets: The producing Mt Cattlin mine (AKE) in Western Australia, and two development projects in Quebec Canada being Nemaska-Whabouchi (LTHM 50%) in development and James Bay in advanced permitting stage.

Downstream: AKE's Naraha lithium carbonate to lithium hydroxide conversion facility in Japan currently in ramp-up will join LTHM's existing lithium hydroxide facilities in the USA and China. A further conversion facility at Quebec (Bécancour) is planned.

Growth profile: Along with assets currently in development, LTM's brine assets have significant near-term expansion potential. Production capacity is now around 90ktpa Lithium Carbonate Equivalent and has potential to lift to around 250ktpa LCE by 2027.

Investment view – Buy, Target Price \$12.10/CDI

LTM provides the largest, most diversified exposure to lithium in terms of mode of upstream production, asset locations, downstream processing and customer markets. It is a key large-cap leverage to lithium prices and sentiment, which we expect to improve over the medium term. The group has a strong balance and growth portfolio.

Earnings Forecast (pro forma)

Year ending 31 December	2023e	2024e	2025e	2026e
Sales (US\$m)	2,030	1,453	2,402	3,204
EBITDA (US\$m)	1,142	558	1,236	1,780
NPAT (reported) (US\$m)	718	221	691	1,040
NPAT (to owners) (US\$m)	649	172	605	947
EPS (to owners) (A¢ps)	90.9	22.8	80.4	125.9
EPS growth (%)	14%	-75%	252%	57%
PER (x)	8.9x	35.4x	10.1x	6.4x
FCF Yield (%)	8%	-6%	3%	18%
EV/EBITDA (x)	4.6x	9.4x	4.2x	2.9x
Dividend (A¢ps)	-	-	-	-
Yield (%)	0%	0%	0%	0%
Franking (%)	-	-	-	-
ROE (%)	9%	3%	8%	11%

SOURCE: BELL POTTER SECURITIES ESTIMATES

Primer note + lithium outlook update

Allkem-Livent Scheme implemented; enter Arcadium Lithium

On 5 January 2023, the Allkem-Livent (AKE-LTHM) Scheme of Arrangement was implemented. The combined group is now NYSE-listed as Arcadium Lithium (NYSE: ALTM) with ASX-listed Chess Depository interests (ASX: LTM).

The transaction delivered each AKE shareholder 1 share or one CDI in LTM for each AKE share held. LTHM shareholders received 2.406 shares in LTM for each LTHM share held. This transaction sees AKE shareholders owning 56% of the merged entity and LTHM shareholders 43%.

Reporting in late Feb-24; first estimates of Group earnings

We are not expecting a material market release from LTM until late February 2024 (10K annual report). It is likely that this reporting is LTHM-heavy (AKE didn't become part of the Group until after year end) and will depart from AKE's previous quarterly reporting structure. Consistent with US listed groups, we expect that segment reporting and guidance will focus on product-line metrics (Revenue, EBITDA, capex etc.) rather than asset level volumes and financials.

This report provides our first estimate of the Group's earnings outlook and under our revised lithium price outlook.

Changes to earnings estimates

We have downgraded our lithium price outlook with recent additions to mine supply and supply chain destocking severely impacting spot prices and a relatively balanced market in the near term. For 2024, we estimate spodumene concentrate (SC6) prices averaging US\$1,100/t (previously US\$2,500/t) and lithium carbonate prices US\$16,250/t (previously US\$30,000/t). Our price outlook trends to our long-term estimates of US\$1,600/t for SC6 (unchanged) and US\$22,500/t for lithium carbonate (previously \$27,500/t).

The table below outlines changes to LTM's earnings estimates based on our new lithium price outlook. We view these estimates as relatively high risk, given the limited group disclosures to date.

Table 1 - Changes to earnings estimates

	Previous			New			Change		
	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e
Sales (US\$m)	2,537	3,074	3,707	1,453	2,402	3,204	-43%	-22%	-14%
EBITDA (US\$m)	1,566	1,834	2,231	558	1,236	1,780	-64%	-33%	-20%
NPAT (to owners) (US\$m)	831	992	1,272	172	605	947	-79%	-39%	-26%
EPS (to owners) (A¢ps)	110	132	169	23	80	126	-79%	-39%	-26%
Dividend (A¢ps)	0	0	0	0	0	0	0%	0%	0%
Valuation	14.90	16.65	18.40	11.15	12.10	13.20	-25%	-27%	-28%

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

LTM assets: Diversification, downstream

BRINE: HOMBRE MUERTO, CATAMARCA ARGENTINA (100%)

Commenced production in 1997 and has a current nameplate capacity of approximately 20ktpa. A phased expansion is currently underway, taking annual capacity to 40ktpa by early 2024 (Expansion 1A and 1B each at 10ktpa). Two additional staged expansions (Expansion 2 & 3) are expected to increase capacity to 100ktpa LCE by the end of 2030.

BRINE: OLAROSZ, JUJUY ARGENTINA (66.5%, TOYOTA TSUSHO 33.5%)

Commenced production in 2015, with Stage 1 nameplate capacity of 17.5ktpa LC. Stage 2 (25ktpa) was commissioned in mid-2023 and will take total capacity to 42.5ktpa LC over a 15 month ramp-up period (i.e. late 2024). Approximately 9.5kt of Stage 2 production will be utilised as feedstock for the Naraha Lithium Hydroxide plant in Japan (75% AKE). A Stage 3 expansion immediately south of the current Olaroz operations (Cauchari, 100% AKE) has the potential to add a further 25ktpa LC capacity.

In the September 2023 quarter Olaroz produced 4.5kt LC at a cash cost of US\$6,088/t.

BRINE: SAL DE VIDA, CATAMARCA ARGENTINA (100%)

Under construction for first production in 2H 2025. Stage 1 nameplate production capacity is 15ktpa LC ramping up over a 12 month period. Stage 2 is expected to add a further 30ktpa LC from 2027 taking total output to 45ktpa LC. Sal de Vida pond development is advanced and the processing plant construction is now underway.

Table 2 - Brine assets

Asset (source company)	Salar del Hombre Muerto (Livent)	Olaroz (Allkem)	Sal de Vida (Allkem)	Olaroz (Cauchari) (Allkem)
Location	Catamarca (Argentina)	Jujuy (Argentina)	Catamarca (Argentina)	Jujuy (Argentina)
Interest	100%	66.50%	100%	100.00%
Status	Producing	Producing	In development	Early stage
Mineral Resource Estimate Mt LCE	11.8Mt	22.6Mt	7.2Mt	6.0Mt
Reserves LCE	3.9Mt		2.5Mt	1.1Mt
Capacity (each stage) ktpa LCE	20.0 (Stage 1 - 1997)	17.5 (Stage 1 - 2015)	15.0 (Stage 1 - 2025)	25.0 (na)
	10.0 (Phase 1a - 2023)	25.0 (Stage 2 - 2023)	30.0 (Stage 2 - 2027-28)	
	10.0 (Phase 1b - 2024)			
	60.0 (staged expansion - na)			
Total planned	100.0	42.5	45.0	25.0

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

HARD ROCK: MT CATTLIN, WESTERN AUSTRALIA (100%)

Commenced production in 2010 and has 1.8Mtpa ore throughput processing plant capable of producing spodumene concentrates at 5-6% Li₂O. In FY23, Mt Cattlin Produced 131kt spodumene concentrate at an average grade of 5.3% Li₂O (FY22 194kt at 5.6% Li₂O). Concentrate is trucked to the Port of Esperance for export.

Mt Cattlin has open pit Ore Reserves of 7.1Mt at 1.2% Li₂O, implying a relatively short remaining mine life of approximately 3-4 years (2027-28). Exploration drilling is ongoing to determine additional mine extension opportunities, including the potential for underground mining.

Mt Cattlin's FY24 production is guided at 210-230kt at a unit cost of \$850/t.

HARD ROCK: JAMES BAY, QUEBEC CANADA (100%)

In final stages of permitting for development of a 110Mt, 1.3% Li₂O Resource to produce on average 311ktpa spodumene concentrate at 5.6% Li₂O. The project's capital cost is estimated at US\$382m and unit operating costs at US\$407/t (September 2023). Once approved, construction is expected to commence, pending seasonal conditions. The James Bay Ore Reserve of 37.3Mt at 1.27% Li₂O supports a mine life if 19 years. The total James Bay Mineral Resource Estimate is 110.2Mt at 1.30% Li₂O.

HARD ROCK: NEMASKA-WHABOUCHI, QUEBEC CANADA (50%)

LTM owns a 50% interest in the Nemaska-Whabouchi project with Investment Quebec (IQ) owning the remaining 50%. The project is in development with construction completion scheduled for February 2025 and commercial production from March 2025. Production (100% basis) is estimated at 235ktpa spodumene concentrate at 5.5% Li₂O. The project has an estimated capital cost of C\$473m (US\$358m) and unit operating costs of C\$970/t (US\$735/t) (November 2023). The Whabouchi deposit currently supports an open pit mining operation for 24 years followed by around 10 years of underground mining. The Whabouchi Reserve is 38.2Mt at 1.31% Li₂O and Mineral Reserve Estimate 54.3Mt at 1.35% Li₂O.

Table 3 - Hard rock assets

Asset (source company)	Mt Cattlin (Allkem)	Nemaska-Whabouchi (Livent)	James Bay (Allkem)
Location	Western Australia (Australia)	Quebec (Canada)	Quebec (Canada)
Interest	100%	50%	100%
Status	In production	In development	Pre-development
		first production early 2025	permitted
Mineral Resource Estimate	10.3Mt at 1.36% Li ₂ O	54.3Mt at 1.35% Li ₂ O	110.2Mt at 1.30% Li ₂ O
Reserve	5.4Mt at 1.30% Li ₂ O	38.2Mt at 1.31% Li ₂ O	37.3Mt at 1.27% Li ₂ O
Mining method	Open pit	Open pit	Open pit
Processing plant Mtpa	1.8	1.2	2.0
Strip ratio LOM		2.8:1	3.6:1
Production ktpa	210-230kt @ 5.3%*	235kt @ 5.5%	311kt @ 6%
Mine life years		34	19
Feasibility/technical reports			
Capex US\$m		C\$473m (US\$358m)	US\$382m
Cash opex FOB US\$/t 5.6%		C\$970/t (US\$735/t)	US\$407/t
Sustaining capex US\$m LOM		C\$198m (US\$150m)	US\$191m
Estimate date		Nov-23	Sep-23

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

DOWNSREAM: NARAHA, JAPAN (50%, TOYOTA TSUSHO 50%)

A lithium carbonate to lithium hydroxide conversion facility which commenced production in October 2022 and commercial production from May 2023. This facility is designed to convert around 9.5ktpa technical grade lithium carbonate sourced from Olaroz into 10ktpa battery grade lithium hydroxide. The project is still in ramp-up to nameplate capacity, producing on average 550t lithium hydroxide per quarter in 2023. The joint venture has plans to increase capacity to 16ktpa lithium hydroxide with full capacity by the end of 2027.

DOWNSREAM: BÉCANCOUR, QUÉBEC (50%)

A proposed spodumene concentrate to lithium hydroxide conversion facility. Bécancour is designed to convert 235ktpa spodumene concentrate from the Whabouchi concentrator into 32ktpa battery grade lithium hydroxide. Bécancour is scheduled to commence production from 2026.

DOWNSTREAM: CHEMICAL MANUFACTURING FACILITIES

Livent has also contributed to the Group a number of lithium chemical manufacturing facilities which are primarily supplied by feedstock from its Argentine operations.

- **Bessemer City, North Carolina, USA:** Nameplate capacity of 15ktpa lithium hydroxide, 250tpa lithium metal and 520tpa butyllithium. An expansion to 25ktpa lithium hydroxide is planned by the end of 2030.
- **Guemes, Argentina:** Nameplate capacity of 9ktpa lithium chloride (crystals).
- **Bromborough, UK:** Nameplate capacity of 1.325ktpa butyllithium.
- **Zhangjiagang, Rugao and Zhejiang, China:** Nameplate capacity of 1.3ktpa butyllithium and 45ktpa lithium carbonate to lithium hydroxide conversion.

Lithium price outlook update

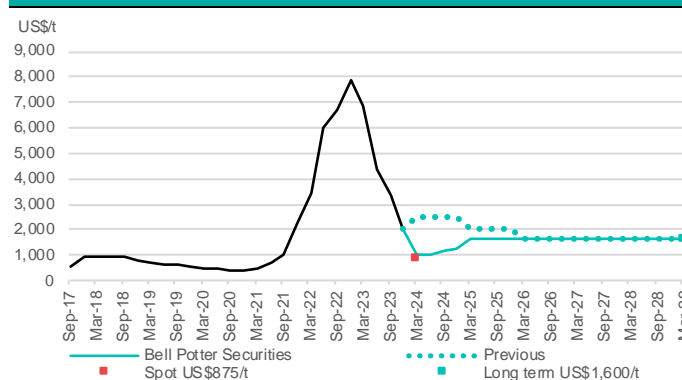
Lithium price changes: Near-term downgrades

We have downgraded our lithium price outlook with recent additions to mine supply, supply chain destocking severely impacting spot prices and a relatively balanced market in the near term. However, our modelling of lithium markets sees longer term risks of market deficits and the need for significant investment in new supply.

Table 4 - Lithium price changes												
Calendar year	2018a	2019a	2020a	2021a	2022a	2023a	2024e	2025e	2026e	2027e	2028e	LTe
New US\$/t												
SC6	877	614	431	1,102	6,007	4,062	1,100	1,600	1,600	1,600	1,600	1,600
Li carbonate	17,694	11,464	7,641	16,155	71,200	39,629	16,250	22,500	22,500	22,500	22,500	22,500
Li hydroxide	19,279	13,976	9,625	17,221	72,918	43,992	18,125	27,500	27,500	27,500	27,500	27,500
Previous US\$/t												
SC6	877	614	431	1,102	6,007	4,142	2,500	2,000	1,600	1,600	1,600	1,600
Li carbonate	17,694	11,464	7,641	16,155	71,200	40,347	30,000	30,000	27,500	27,500	27,500	27,500
Li hydroxide	19,279	13,976	9,625	17,221	72,918	44,785	32,500	35,000	32,500	32,500	32,500	32,500
Change %												
SC6							-2%	-56%	-20%	0%	0%	0%
Li carbonate							-2%	-46%	-25%	-18%	-18%	-18%
Li hydroxide							-2%	-44%	-21%	-15%	-15%	-15%

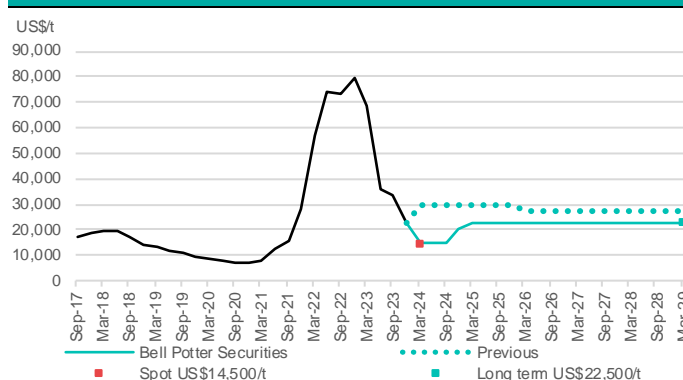
SOURCE: BELL POTTER SECURITIES ESTIMATES

Figure 1 - Spodumene concentrate CFR Asia price outlook



SOURCE: FASTMARKETS, BELL POTTER SECURITIES ESTIMATES

Figure 2 - Lithium carbonate price outlook



SOURCE: FASTMARKETS, BELL POTTER SECURITIES ESTIMATES

Lithium market modelling: New supply needed from 2027

The following table is an output from our lithium market supply-demand model. On our estimates, there is material new supply required to meet market demand from 2027. Moreover, much of this new supply will likely be from greenfield and higher-risk projects.

Lithium demand: Our lithium demand model is supported by global EV penetration increasing to 50% of new car sales in 2030 (currently around 15%) and traditional sources of lithium demand growing modestly. We do not explicitly model stationary storage demand for lithium.

Lithium supply: We have modelled greenfield expansions and major new lithium projects. The supply includes hard rock and brine expansions and developments in Australia and South America. We also assume growth of existing non-modelled supply across the forecast period. We have not assumed supply growth from early-stage projects. While

there are a large number of such projects globally, we expect development and permitting risks will constrain and delay any major new supply additions such to maintain a relatively tight market longer term.

Lithium supply chain inventories: We believe that the strength in lithium prices in 2022 and the current weakness were exacerbated by a post-COVID inventory build in 2022 followed by de-stocking 2023. We expect inventory shifts to be an ongoing driver of price volatility.

Table 5 - Lithium market modelling

	2022	2023	2024	2025	2026	2027	2028	2029	2030
LCE supply model outputs									
Australia									
Currently producing kt	298	414	501	583	640	644	661	606	609
New projects kt	0	0	16	105	108	114	133	133	133
South America									
Currently producing kt	202	271	351	479	499	511	511	520	521
New projects kt	0	0	0	21	103	138	152	166	167
Other kt	194	230	261	287	307	313	319	315	316
Total LCE supply kt	695	914	1,129	1,475	1,658	1,721	1,776	1,741	1,746
LCE demand model outputs									
EV penetration %	13%	15%	19%	23%	27%	32%	38%	44%	50%
EVs sold M/year	10.5	13.9	17.8	22.7	28.0	33.8	40.2	47.2	54.5
EV average kWh/EV	70	70	70	70	70	70	70	70	70
Total GWh battery demand	732	973	1,243	1,586	1,963	2,366	2,816	3,303	3,818
kg LCE / kWh	0.75	0.75	0.74	0.74	0.73	0.72	0.71	0.69	0.68
EV LCE demand kt	547	725	924	1,171	1,437	1,710	1,998	2,290	2,577
Other LCE demand kt	156	159	162	166	169	172	176	179	183
Underlying LCE demand kt	703	885	1,086	1,337	1,606	1,882	2,174	2,469	2,760
LCE inventory changes kt	20	-50	50	124	67	-25	58	59	58
LCE theoretical balance kt	-28	80	-7	14	-16	-136	-456	-788	-1,072
Price assumptions									
SC6 US\$/t	6,007	4,062	1,100	1,600	1,600	1,600	1,600	1,600	1,600
LC US\$/t	71,200	39,629	16,250	22,500	22,500	22,500	22,500	22,500	22,500

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

ASX-listed lithium sector

Table 6 – Lithium peer comparison - EV/Resource, EV/Reserve, Expected annual LCE production, EV/Production

Company name	EV* (A\$m)	Total LCE Resource (Mt)	Total LCE Reserve (Mt)	EV/Resource (A\$/t)	EV/Reserve (A\$/t)	Expected annual LCE production* (kt)	EV to production (A\$'000t)
Diversified							
Mineral Resources (MIN)	11,735	4.9	3.2			122	
IGO (IGO)	5,029	3.3	2.0			66	
Develop Global (DVP)	504	0.3	0.0			25	
Lithium focussed							
Producers							
Pilbara Minerals (PLS)	7,912	11.9	6.3	667	1,253	136	58
Arcadium Lithium (LTM)	12,783	44.5	9.5	288	1,350	179	71
Core Lithium (CXO)	270	1.0	0.4	265	761	25	11
Sayona Mining (SYA)	226	2.8	0.4	80	518	21	11
Argosy Minerals (AGY)	137	0.5	0.0	257	na	11	13
Mean				311	970		33
Median				265	1,007		13
Developers							
Liontown Resources (LTR)	2,535	5.6	2.3	449	1,119	100	25
Leo Lithium (LLL)	538	3.2	0.9	167	616	55	10
Ioneer (INR)	208	1.7	0.3	124	721	19	11
Galan Lithium (GLN)	167	7.3	0.0	23	na	21	8
Anson Resources (ASN)	118	1.5	0.0	79	na	na	na
Mean				191	819		13
Median				146	721		10
Resource building							
Patriot Battery Metals (PMT)	912	3.8	0.0	238	na	na	na
Piedmont Lithium (PLL)	430	2.5	0.7	172	642	53	8
Latin Resources (LRS)	546	2.2	0.0	248	na	64	9
Lithium Power International (LPI)	314	1.9	0.5	165	656	15	21
Vulcan Energy Resources (VUL)	183	24.6	0.0	7	na	24	8
Global Lithium Resources (GL1)	96	1.5	0.0	66	na	na	na
Atlantic Lithium (A11)	235	0.5	0.0	432	na	38	6
Delta Lithium (DLI)	65	1.1	0.0	62	na	na	na
Winsome Resources (WR1)	68	1.6	0.0	42	na	na	na
Lake Resources (LKE)	91	8.0	0.6	11	145	38	2
Arizona Lithium (AZL)	66	6.6	0.0	10	na	na	na
European Lithium (EUR)	109	0.3	0.2	343	607	9	12
Green Technology Metals (GT1)	60	0.7	0.0	87	na	na	na
European Metals Holdings (EMH)	37	3.6	0.0	10	na	13	3
Lepidico (LPD)	56	0.1	0.1	533	705	3	18
Jindalee Resources (JLL)	60	21.5	0.0	3	na	na	na
Infinity Lithium Corporation (INF)	33	1.3	0.0	26	na	na	na
Critical Resources (CRR)	21	0.2	0.0	101	na	0	na
Pursuit Minerals (PUR)	17	0.0	0.0	366	na	na	na
Lithium Plus Minerals (LPM)	7	0.1	0.0	49	na	na	na
Mean				149	551		10
Median				76	642		8

SOURCE: COMPANY DATA, IRESS AND BELL POTTER SECURITIES ESTIMATES
 * EXPECTED PRODUCTION FROM EXISTING OPERATIONS OR PROJECT BEING DEVELOPED

Arcadium Lithium PLC (LTM)

Company description

LTM owns and operates a diversified portfolio of lithium producing assets, including:

- Brine projects:
 1. **Hombre Muerto** (Producing, 100% LTM, Catamarca Province, Argentina): Producing since 1997 with a current nameplate capacity of around 20ktpa. Phased expansion is currently underway, taking annual capacity to 40ktpa by early 2024 (Expansion 1A and 1B each at 10ktpa). Two additional staged expansions (Expansion 2 & 3) are expected to increase capacity to 100ktpa LCE by the end of 2030.
 2. **Olaroz** (Producing, 66.5% LTM, Jujuy Province, Argentina): Producing since April 2015. The Stage 2 expansion at Olaroz will lift lithium carbonate capacity from current levels of 17.5ktpa to 42.5ktpa ramping up from mid-2023. Subsequent expansions could further lift capacity at Olaroz.
 3. **Sal de Vida** (Under development, 100% LTM, Catamarca Province, Argentina): Being developed in two stages (Stage 1 +15ktpa LCE and Stage 2 +30ktpa). Stage 1 will be commissioned in mid-2025.
- Hard rock / spodumene concentrate projects:
 1. **Mt Cattlin** (Producing, 100% LTM, Ravensthorpe, Western Australia): Capacity of around 200ktpa of 5.6-5.8% Li₂O spodumene concentrate (28ktpa LCE) and mine life to 2027-28 supported by current Reserves. There are studies underway to examine underground mining opportunities to further extend the asset's life.
 2. **James Bay** (Permitting and FID in 2024 for first production from 2026, 100% LTM, Québec, Canada): Potential production of 321ktpa of 5.6% Li₂O spodumene concentrate (44ktpa LCE) over a 19 year project life.
 3. **Nemaska-Whabouchi** (in development for first production from 2025, 50% LTM, Québec, Canada): Potential production of 235ktpa spodumene concentrate at 5.5% Li₂O. The project has an estimated capital cost of C\$473m (US\$358m) and unit operating costs of C\$970/t (US\$735/t).
- Downstream projects:
 1. **Naraha** (Under development, 75% LTM, Naraha, Japan): Primary grade lithium carbonate to battery grade lithium hydroxide conversion facility with planned annual production of 10ktpa. First production was achieved in October 2022 and battery grade qualification from mid-2023.
 2. **Specialty Lithium** (producing): Downstream processing and conversion facilities located in the USA, UK, Argentina and China.

Investment view – Buy, Target Price \$12.10/CDI

LTM provides the largest, most diversified exposure to lithium in terms of mode of upstream production, asset locations, downstream processing and customer markets. It is a key large-cap leverage to lithium prices and sentiment, which we expect to improve over the medium term. The group has a strong balance and growth portfolio.

Investment risks

Risks include, but are not limited to:

- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.
- **Infrastructure access.** Bulk commodity producers are particularly reliant upon access to transport infrastructure. Access to infrastructure is often subject to contractual agreements, permits, and capacity allocations. Agreements are typically long-term in nature (+10 years). Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.
- **Operating and capital cost fluctuations.** Markets for exploration, development and mining inputs can fluctuate widely and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to energy and labour markets.
- **Resource growth and mine life extensions.** Future earnings forecasts and valuations may rely upon resource and reserve growth to extend mine lives.
- **Sovereign risks.** Mining companies' assets can be located in countries other than Australia and are subject to the sovereign risks of that country.
- **Regulatory changes risks.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuation of mining companies.
- **Environmental risks.** Resources companies are exposed to risks associated with environmental degradation as a result of their exploration and mining processes. Fossil fuel producers (coal) may be particularly exposed to the environmental risks of end markets including the electricity generation and steel production industries.
- **Operating and development risks.** Mining companies' assets are subject to risks associated with their operation and development. Risks for each company can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single operation company. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.
- **Occupational health and safety risks.** Mining companies are particularly exposed to OH&S risks given the physical nature and human resource intensity of operating assets.
- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments, and managing debt repayments.
- **Merger/acquisition risks.** Risks associated with value transferred during merger and acquisition activity.
- **COVID-19 risks:** Mining companies' rely on freedom of movement of workforces, functioning transport routes, reliable logistics services including road, rail, aviation and ports in order to maintain operations and get their products to market. They also rely on liquid, functioning markets to sell their products. Measures being put in place to combat the COVID-19 pandemic are posing risks to these conditions.

Arcadium Lithium PLC

as at 19 January 2024

Recommendation

Buy

Price

\$8.09

Target (12 months)

\$12.10

Table 7 - Financial summary

Date	19/01/24					Bell Potter Securities
Price	A\$/sh	8.09				Stuart Howe (showe@bellpotter.com.au, +61 3 9235 1856)
Target price	A\$/sh	12.10				
PROFIT AND LOSS						
Year ending 31 December	Unit	2022a	2023e	2024e	2025e	2026e
Revenue	US\$m	1,935	2,030	1,453	2,402	3,204
Expenses	US\$m	(972)	(888)	(895)	(1,166)	(1,424)
EBITDA	US\$m	963	1,142	558	1,236	1,780
Depreciation, amortisation & impairments	US\$m	(103)	(169)	(183)	(220)	(281)
EBIT	US\$m	860	974	375	1,016	1,499
Net interest expense	US\$m	16	47	16	7	13
Profit before tax	US\$m	876	1,020	391	1,023	1,511
Tax expense	US\$m	(233)	(302)	(171)	(332)	(471)
NPAT (underlying)	US\$m	643	718	221	691	1,040
Adjustments	US\$m	-	-	-	-	-
NPAT (reported)	US\$m	643	718	221	691	1,040
Non-controlling interests	US\$m	50	69	49	86	93
NPAT to owners	US\$m	593	649	172	605	947
CASH FLOW STATEMENT						
Year ending 31 December	Unit	2022a	2023e	2024e	2025e	2026e
OPERATING CASH FLOW	US\$m	1,209	1,022	433	888	1,347
INVESTING CASH FLOW	US\$m	(356)	(407)	(804)	(721)	(274)
Capex	US\$m	(356)	(407)	(804)	(721)	(274)
Disposal of assets	US\$m	-	-	-	-	-
Other	US\$m	(364)	(155)	-	-	-
Investing cash flow	US\$m	(720)	(562)	(804)	(721)	(274)
FINANCING CASH FLOW	US\$m	-	-	-	-	-
Debt proceeds/(repayments)	US\$m	-	-	-	-	-
Dividends paid	US\$m	-	-	-	-	-
Proceeds/(repayment) of borrowings	US\$m	-	(43)	-	-	-
Proceeds from share issues (net)	US\$m	-	-	-	-	-
Other	US\$m	(76)	(46)	-	-	-
Financing cash flow	US\$m	(76)	(89)	-	-	-
Change in cash	US\$m	413	371	(371)	167	1,073
Free cash flow	US\$m	489	460	(371)	167	1,073
BALANCE SHEET						
Year ending 31 December	Unit	1H23a	2023e	2024e	2025e	2026e
ASSETS						
Cash	US\$m	983	1,280	909	1,076	2,149
Receivables	US\$m	265	205	189	290	387
Inventories	US\$m	441	441	441	441	441
Capital assets	US\$m	7,566	7,547	8,168	8,669	8,662
Right of use	US\$m	60	60	60	60	60
Other assets	US\$m	1,004	1,004	1,004	1,004	1,004
Total assets	US\$m	10,320	10,537	10,772	11,540	12,703
LIABILITIES						
Creditors	US\$m	218	251	265	342	465
Borrowings	US\$m	517	475	475	475	475
Lease liabilities	US\$m	60	60	60	60	60
Provisions	US\$m	16	16	16	16	16
Tax related liabilities	US\$m	1,527	1,527	1,527	1,527	1,527
Other liabilities	US\$m	475	475	475	475	475
Total liabilities	US\$m	2,813	2,803	2,817	2,895	3,017
NET ASSETS	US\$m	7,507	7,734	7,955	8,645	9,686
Share capital	US\$m	6,528	6,528	6,528	6,528	6,528
Retained earnings	US\$m	449	676	897	1,588	2,628
Reserves	US\$m	(1)	(1)	(1)	(1)	(1)
Non-controlling interest	US\$m	530	530	530	530	530
SHAREHOLDER EQUITY	US\$m	7,507	7,734	7,955	8,645	9,686
Weighted average shares	m	1,075	1,075	1,075	1,075	1,075
FINANCIAL RATIOS						
Year ending 31 December	Unit	2022a	2023e	2024e	2025e	2026e
VALUATION						
EPS	US\$/sh	55	60	16	56	88
EPS	Ac/sh	79	91	23	80	126
EPS growth (Acps)	%	-	14%	-75%	252%	57%
PER	x	10.2x	8.9x	35.4x	10.1x	6.4x
DPS	Ac/sh	-	-	-	-	-
Franking	%	0.0%	0.0%	0.0%	0.0%	0.0%
Yield	%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF/share	Ac/sh	65	64	(49)	22	143
FCF yield	%	8.1%	8.0%	-6.1%	2.7%	17.6%
EV/EBITDA	x	5.4x	4.6x	9.4x	4.2x	2.9x
LIQUIDITY & LEVERAGE						
Net debt / (cash)	US\$m	-	(746)	(374)	(542)	(1,614)
Net debt / Equity	%	-	-11%	-6%	-8%	-25%
Net debt / Net debt + Equity	%	-	-13%	-6%	-9%	-33%
Net debt / EBITDA	x	-	-0.7x	-0.7x	-0.4x	-0.9x
EBITDA / net int expense	x	-	24.5x	35.6x	174.1x	141.5x
PROFITABILITY RATIOS						
EBITDA margin	%	50%	56%	38%	51%	56%
EBIT margin	%	44%	48%	26%	42%	47%
Return on assets	%	-	7%	2%	6%	9%
Return on equity	%	-	9%	3%	8%	11%
ASSUMPTIONS - PRICES & FX (NOMINAL)						
Year ending 31 December	Unit	2022a	2023e	2024e	2025e	2026e
Spodumene (min. 5-6% LiO)	US\$/t	6,007	4,062	1,100	1,600	1,600
Lithium carbonate price - Battery grade	US\$/t	71,200	39,629	16,250	22,500	22,500
Lithium hydroxide price - Battery grade	US\$/t	72,918	43,992	18,125	27,500	27,500
FX	US\$/A\$	0.69	0.66	0.70	0.70	0.70
ASSUMPTIONS - PRODUCTION						
Year ending 31 December	Unit	2022a	2023e	2024e	2025e	2026e
Production - Olaroz 100% LCE	kt	13	17	34	41	43
Production - SdHM 100% LCE	kt	19	21	30	33	49
Production - Sal de Vida 100% LCE	kt	-	-	-	2	10
Production - Brine projects LCE equity	kt	28	32	53	62	87
Production - Mt Cattlin 100% SC	kt	107	217	193	198	192
Production - James Bay 100% SC	kt	-	-	-	-	199
Production - Nemaska 100% SC	kt	-	-	-	155	240
Production - SC equity	kt	107	217	193	276	511
Production - SC, LCE equity	kt	14	28	25	37	69
Production - Group LCE equity	kt	42	61	78	99	156
VALUATION						
Shares on issue	m	1,075				
NPV (Discount rate 8%)	Current					
Project (equity) (risk discount)	US\$m	US\$/sh	+12 mths	US\$/sh	+24 mths	US\$/sh
SdHM (100.0%) (disc 65%)	2,899	2.70	3,173	2.95	3,381	3.15
Olaroz (Stage 1 & 2) (66.5%) (disc 25%)	1,556	1.45	1,603	1.49	1,596	1.49
Sal de Vida (100.0%) (disc 45%)	1,561	1.45	1,863	1.73	2,131	1.98
Mt Cattlin (100.0%) (disc 0%)	191	0.18	219	0.20	142	0.13
Nemaska (50.0%) (disc 40%)	81	0.08	104	0.10	171	0.16
James Bay (100.0%) (disc 40%)	609	0.57	713	0.66	896	0.83
Naraha (75.0%) (disc 20%)	217	0.20	232	0.22	230	0.21
Specialty Lithium (100.0%) (disc 0%)	750	0.70	798	0.74	815	0.76
Other	124	0.12	138	0.13	150	0.14
Corporate costs	(625)	(0.58)	(675)	(0.63)	(729)	(0.68)
Total enterprise value	7,365	6.85	8,168	7.60	8,782	8.17
Net debt / (cash)	(481)	(0.45)	(374)	(0.35)	(542)	(0.50)
Equity value	7,846	7.30	8,543	7.95	9,324	8.68
Equity value A\$/sh	11,928	11.15	12,987	12.10	14,174	13.20

SOURCE: BELL POTTER SECURITIES ESTIMATES

Recommendation structure

Buy: Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

Hold: Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

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