



## Plant heading to site; fully funded

Scoping study to double production, and value.

### Recommendation

**Strong BUY, High Risk**

### Price

**20.5c**

### Valuation

**34.0c**

### Commodity

**Lithium / spodumene**

- **AJM has secured US\$ 110m (\$A 140m) of debt, adding to the \$41m in equity raised in January to complete construction of its \$140m Pilgangoora project.**
- **On site work is well progressed. All plant has been built. Most is on-site with the last expected in early October. Mine development is proceeding on time.**
- **AJM expects to begin commissioning during the December quarter with product early in 2018.**
- **Due to strong demand, AJM has begun a scoping study to expand production to 450kt/yr, from 220kt/yr. Beer & Co.'s preliminary analysis shows that this expansion more than doubles our un-risked value of AJM.**

### Snapshot

Market Cap	\$332m
Cash on hand (30 June 2017)	\$13.3m
Shares on Issue	1,618m
52 Week High	23.0c
52 Week Low	11.5c
1 month / 6 month VWAP	20.1c / 17.3c

### AJM is fully funded to commercial production

AJM's Pilgangoora project has a capital cost of \$A 140m. In January 2017, AJM announced that it had raised \$41m in equity; orders for long-lead time items were placed and on-site construction began in March 2017.

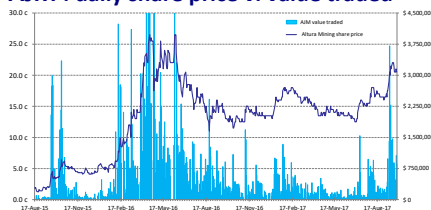
AJM announced that it has satisfied the conditions precedent to draw on US\$ 110m in debt to complete project development.

### Commissioning late 2017; Product early 2018

All plant items have been built; most are on site with the last expected in early October. Site development has been progressed to be able to install the plant and commission. Commissioning is expected in late 2017.

AJM expects first product in early 2018. This time allows for delays, as may arise during the cyclone season. Continued benign conditions will see product earlier.

### AJM : daily share price v. value traded



AJM announced the results of its DFS on their Pilgangoora spodumene project in September 2016. The DFS processed 1.54Mt/yr from Ore Reserve of 20.3Mt, within a resource of 39.2Mt, to produce an average of 220kt/yr of 6% Li<sub>2</sub>O concentrate.

The expected capital cost is \$A 140m. On-site construction began in March 2017, with commissioning late in 2017 for first product in early 2018.

Optimum Nano, the largest shareholder in AJM, and one of 2 off-takers, is one of China's largest producers of lithium-ion batteries has requested AJM to undertake a scoping study to increase production to 450kt/yr of 6% Li<sub>2</sub>O concentrate.

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### Scoping study to 450kt/yr - MORE than DOUBLES our valuation

AJM's largest shareholder, Optimum Nano, is one of the largest Chinese producers of lithium ion batteries, and wants more product. Due to this strong demand, AJM has begun a scoping study to increase production from 220kt/yr to 450kt/yr of 6% Li<sub>2</sub>O conc.

With the US\$ 110m in debt, AJM has sufficient funds to undertake this scoping study and cope with unexpected commissioning and ramp-up issues.

Beer & Co. calculates that doubling plant capacity, without any increase in mining inventory, more than doubles our un-risked valuation.

### Off-take secured and product prices firm

AJM has 2 off-take agreements that cover all of its production. These agreements lock-in prices for 6.0% Li<sub>2</sub>O concentrate at a minimum of US\$ 550/t and a maximum of US\$ 950/t.

### Beer & Co affirms our STRONG BUY, High Risk, rating on AJM

Beer & Co.'s risked valuation is a premium of over 50% to the share price.

The potential extra value from doubling throughput nearly doubles our risked valuation, so we retain a STRONG BUY recommendation.

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## AJM’s Pilgangoora project fully funded

### AJM’s Pilgangoora project is fully funded

On 26 September 2016, AJM announced the results of their DFS on Pilgangoora, with key parameters being :

- Mineral Resource Estimate : 39.2Mt grading 1.02% Li<sub>2</sub>O for 400kt of contained Li<sub>2</sub>O;
- Ore Reserve Estimate, and mining inventory, of 20.3Mt grading 1.06% Li<sub>2</sub>O for 215kt of contained Li<sub>2</sub>O;
- Processing rate of 1.54Mt/yr to produce an average of 219kt/yr of 6.0% Li<sub>2</sub>O spodumene concentrate;
- Pre-production capital costs \$A 132m, including owner’s costs but excluding contingencies and commissioning costs, with an error margin of +/- 10%;
- Expected operating costs for \$A 316/t of 6% Li<sub>2</sub>O spodumene concentrate, FOB.

### Project construction is about halfway complete

### Civil works have been completed

On 30 January 2017, AJM upgraded its Resource and Reserve estimates to

- 40.3Mt in Indicated Resources, grading 1.00% Li<sub>2</sub>O for 403kt of contained Li<sub>2</sub>O, within 42.6Mt of total Resources for 424kt of contained Li<sub>2</sub>O; and
- 30.1Mt of Reserves grading 1.04% Li<sub>2</sub>O for 313kt of contained Li<sub>2</sub>O.

### Infrastructure is in place

During January 2017, AJM announced that it had raised \$A 42.6m in new equity which enabled AJM to confirm orders for long lead time items and also to begin on-site construction.

### Footings for plant, including expansion options, have been completed

On 28 July 2017, AJM advised that it had secured US\$ 110m in debt finance giving a total of about \$A 182m. In Beer & Co.’s view, this more than adequately covers :

- Project construction;
- Project contingencies and commissioning costs;
- Potential project delays; and
- Costs associated with the announced scoping study to expand the Pilgangoora project from 220kt/yr of 6% Li<sub>2</sub>O spodumene concentrate to 450kt/yr, as announced by AJM in their 31 July 2017 report for the June 2017 quarter.

### Most of the plant has been delivered to site, with the last pieces expected in early October

## Commissioning 2017; Product early 2018

In their 9 August 2017 announcement, AJM advised that

- On-site construction has advanced sufficiently for all plant to be installed;
- All plant items have been built; and
- All plant items are to be mobilised to site during August and early September.

### Commissioning is on track to start in Q4

AJM confirmed its timetable, as shown in Figure 1, of

- Commissioning late in 2017; and
- Product early in 2018.

### First product may be in 2017; definitely early 2018

**Figure 1 : AJM’s timeline**



Source : AJM presentation, February 2017

In Beer & Co.’s view, given the construction progress to date, AJM’s timetable is conservative, and allows for significant weather interruptions, which are possible in the Pilbara depending on the severity and timing of cyclone season.

## Beer & Co.'s projections - Near Term

Figure 2 shows Beer & Co.'s estimates for production from AJM's Pilgangoora project.

Beer & Co.'s projections for AJM's Pilgangoora project allow for a slow ramp-up

We expect it will be quicker, but do not bank on that

Beer & Co.'s modelling has been matched to AJM's advice in its DFS

Beer & Co.'s unit processing costs are sensitive to volume

Beer & Co.'s estimated unit mining costs are fairly stable

**Figure 2 : Beer & Co.'s projected production**

	Dec. 17	Mar. 18	Jun. 18	Sep. 18	Dec. 18	Mar. 19	Jun. 19
Ore mined	0 kt	131 kt	300 kt	375 kt	375 kt	375 kt	375 kt
Waste moved	0 kt	344 kt	786 kt	982 kt	982 kt	982 kt	982 kt
Ore Processed	0 kt	66 kt	216 kt	338 kt	375 kt	375 kt	375 kt
Li2O grade	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %
Recovery	70 %	70 %	74 %	78 %	82 %	82 %	82 %
Li2O recovered	0 t	515 t	1,793 t	2,962 t	3,464 t	3,464 t	3,464 t
Conc grade	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %
Li2O concentrate	0 t	8,589 t	29,879 t	49,366 t	57,738 t	57,738 t	57,738 t

Source : Beer & Co estimates

Figure 2 shows that despite Beer & Co.'s optimism on potential production, we have allowed for an extended commissioning period, taking about 8 months to achieve the planned throughput rate.

Figure 2 also shows that Beer & Co projects that AJM will focus on higher grade parts of the ore-body first.

Figure 3 shows Beer & Co.'s projected costs. Over the life of the project, assuming a mining inventory of 20.3Mt, our costs, after adjusting for royalties, Beer & Co.'s calculated cost is \$A320/t of concentrate.

**Figure 3 : Beer & Co.'s projected costs**

Cash Costs, AUD m	Dec. 17	Mar. 18	Jun. 18	Sep. 18	Dec. 18	Mar. 19	Jun. 19
Waste	0.0	1.2	2.2	3.4	2.8	2.8	2.8
AUD/t material		\$A 3.4/t	\$A 2.8/t	\$A 3.4/t	\$A 2.9/t	\$A 2.9/t	\$A 2.9/t
Ore Mining	0.0	0.6	1.2	1.8	1.2	1.3	1.3
AUD/t ore		\$A 4.6/t	\$A 4.0/t	\$A 4.8/t	\$A 3.3/t	\$A 3.3/t	\$A 3.4/t
Drill & Blast	0.0	0.5	0.8	1.3	1.0	1.0	1.0
AUD/t ore		\$A 3.7/t	\$A 2.7/t	\$A 3.5/t	\$A 2.5/t	\$A 2.5/t	\$A 2.5/t
Mining Overhead	0.0	0.6	1.1	1.7	1.2	1.2	1.2
AUD/t ore		\$A 4.5/t	\$A 3.6/t	\$A 4.5/t	\$A 3.1/t	\$A 3.1/t	\$A 3.1/t
<b>MINING</b>	<b>0.0</b>	<b>2.9</b>	<b>5.3</b>	<b>8.2</b>	<b>6.2</b>	<b>6.2</b>	<b>6.2</b>
AUD/t ore		\$A 21.7/t	\$A 17.7/t	\$A 21.7/t	\$A 16.5/t	\$A 16.5/t	\$A 16.6/t
PROCESSING	0.0	1.5	4.7	6.2	6.6	6.9	6.9
AUD/t ore		\$A 23.4/t	\$A 21.6/t	\$A 18.4/t	\$A 17.6/t	\$A 18.5/t	\$A 18.5/t
SITE G & A	0.0	0.6	1.2	1.8	1.2	1.2	1.2
AUD/t ore		\$A 9.3/t	\$A 5.7/t	\$A 5.4/t	\$A 3.3/t	\$A 3.3/t	\$A 3.3/t
TRANSPORT	0.0	0.3	1.2	1.5	1.9	2.2	2.2
AUD/t conc		\$A 39/t	\$A 39/t	\$A 30/t	\$A 33/t	\$A 39/t	\$A 39/t
ROYALTIES	0.0	0.5	1.7	2.2	2.8	3.3	3.1
<b>TOTAL</b>	<b>0.0</b>	<b>5.8</b>	<b>14.1</b>	<b>19.9</b>	<b>18.8</b>	<b>19.9</b>	<b>19.7</b>

Source : Beer & Co estimates

Figure 4 shows the commodity price assumptions which, combined with the production shown in Figure 2 generates the revenue, and then subtracts the costs shown in Figure 3 to show the EBIT for AJM projected by Beer & Co over the next 18 months.

Note that our price assumptions for spodumene concentrate allows for a significant fall from current prices.

Figure 4 shows that Beer & Co projects that AJM's Pilgangoora project will have more than recovered its capital outlay about 15 months after first product.

**Figure 4 : Beer & Co.'s projected financial outcomes**

Beer & Co uses projected spodumene prices that considerably lower than current prices, as there are 3 projects tramping up in 2018 H1

AUD m	Dec. 17	Mar. 18	Jun. 18	Sep. 18	Dec. 18	Mar. 19	Jun. 19
Spodumene, 6% Li2O	US\$ 900 /t	US\$ 750 /t	US\$ 750 /t	US\$ 750 /t	US\$ 750 /t	US\$ 700 /t	US\$ 700 /t
AUD/USD	0.750	0.750	0.750	0.750	0.750	0.750	0.750
Revenue	0.0	8.6	29.9	49.4	57.7	53.9	53.9
Production Costs	0.0	(5.8)	(14.1)	(19.9)	(18.8)	(19.9)	(19.7)
Corporate costs	(0.4)	(0.4)	(0.4)	(1.5)	(0.4)	(0.4)	(0.4)
Dep'cn & Amort'sn	0.0	(1.0)	(3.1)	(4.8)	(5.3)	(5.4)	(5.4)
<b>E B I T</b>	<b>(0.4)</b>	<b>1.4</b>	<b>12.3</b>	<b>23.2</b>	<b>33.3</b>	<b>28.1</b>	<b>28.3</b>

Source : Beer & Co estimates

Due to firm prices, Beer & Co projects a quick pay-back of capital

Taken together, Figures 2 to 4 show that current high prices make AJM's Pilgangoora project robust with a quick pay-back of capital, even if there are commissioning issues.

A period of about 15 months

### Beer & Co.'s projections - Project life

Figure 5 shows Beer & Co.'s projected production for the Life of Mine for Pilgangoora operations, extending the information shown in Figure 2.

**Figure 5 : Beer & Co.'s projected production, Life of Mine**

Life of Mine	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	
Ore mined	40,406 kt	431 kt	1,500 kt	1,515 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt
Mining Inventory	40.3 Mt	40.0 Mt	38.6 Mt	37.0 Mt	35.5 Mt	34.0 Mt	32.4 Mt	30.9 Mt	29.3 Mt	27.8 Mt	26.3 Mt	24.7 Mt	10.9 Mt	9.3 Mt	7.8 Mt	6.2 Mt	4.7 Mt	3.2 Mt	1.6 Mt	0.1 Mt
	1.00%	1.13%	1.13%	1.13%	1.13%	1.13%	1.06%	1.05%	1.05%	1.01%	1.01%	1.01%	1.01%	1.01%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%
waste : ore	2.7 : 1	2.6 : 1	2.6 : 1	2.6 : 1	2.6 : 1	2.9 : 1	3.3 : 1	2.3 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1	2.7 : 1
Waste moved	109,345 kt	1,129 kt	3,929 kt	3,978 kt	4,048 kt	4,398 kt	5,123 kt	3,524 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt	4,161 kt
Ore Processed	40,214 kt	281 kt	1,463 kt	1,510 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt	1,540 kt
Li2O grade	1.00%	1.13%	1.13%	1.13%	1.13%	1.13%	1.05%	1.05%	1.02%	1.01%	1.01%	1.01%	1.01%	0.95%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%
Recovery	81.9%	73%	81%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%
Li2O recovered	329,546 t	2,308 t	13,355 t	13,949 t	14,227 t	14,227 t	13,321 t	13,297 t	12,916 t	12,754 t	12,754 t	12,754 t	12,041 t	11,142 t	11,142 t	11,142 t	11,142 t	11,142 t	11,142 t	11,142 t
Conc grade	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Li2O concentrate	5,492 kt	38.5 kt	222.6 kt	232.5 kt	237.1 kt	237.1 kt	222.0 kt	221.6 kt	215.3 kt	212.6 kt	212.6 kt	212.6 kt	212.6 kt	200.7 kt	185.7 kt	185.7 kt	185.7 kt	185.7 kt	185.7 kt	185.7 kt

Source : Beer & Co estimates

Figure 5 shows the impact of a projected mined grade over time.

It also shows that a mining rate of 1.54Mt/yr, the project has a life, based on Reserves of about 20 years, with the potential for extension from further drilling.

Figure 6 shows the resulting financial outcomes.

**Figure 6 : Beer & Co.'s financial projections**

AUD m	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Spodumene price	US\$ 825/t	US\$ 725/t	US\$ 675/t	US\$ 650/t	US\$ 638/t	US\$ 588/t	US\$ 550/t	US\$ 550/t	US\$ 550/t	US\$ 550/t	US\$ 550/t
Cocntrate shipped	38 kt	223 kt	232 kt	237 kt	237 kt	222 kt	222 kt	215 kt	213 kt	213 kt	213 kt
Sales revenue	44	220	215	211	207	180	168	163	161	161	161
Total Revenue	44	221	217	215	212	186	175	172	171	172	173
Cost of Goods Sold	(22)	(70)	(71)	(72)	(72)	(73)	(71)	(72)	(72)	(73)	(73)
Royalties	(2)	(12)	(12)	(12)	(12)	(10)	(9)	(9)	(9)	(9)	(9)
Corporate Costs	(6)	(6)	(6)	(6)	(6)	(2)	(2)	(2)	(2)	(2)	(2)
EBITDA	14	133	128	125	123	101	94	89	88	89	90
Dep'cn & Amort'sn	(4)	(21)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(7)	(1)
Interest Expense	(3)	(8)	(6)	(5)	(3)	(2)	(1)	(0)	(0)	(0)	(0)
Pre-Tax Profit	8	104	100	98	97	77	71	66	66	82	89
Tax Expense	(4)	(33)	(31)	(31)	(30)	(23)	(21)	(20)	(20)	(25)	(27)
NPAT	4	72	69	67	66	54	50	46	46	57	63
Exploration + Feasibility											
Maintenance Capex	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Expansion Capex	(99)										
<b>Net, after-tax, cashflow</b>	<b>0</b>	<b>114</b>	<b>88</b>	<b>82</b>	<b>78</b>	<b>54</b>	<b>57</b>	<b>65</b>	<b>64</b>	<b>63</b>	<b>59</b>
Change in Equity											
Change in Debt	0	(14)	(16)	(17)	(19)	(15)	(8)	0	0	0	0
Ordinary shares - year	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m	1,618m
Earnings per Share	0.5 c	4.7 c	4.5 c	4.4 c	4.4 c	3.3 c	3.1 c	2.9 c	2.8 c	3.5 c	3.9 c

Source : Beer & Co estimates

### Scoping study to 450kt/yr

**AJM has announced a scoping study to more than double the rate of production**

In their 31 July 2017 announcement, AJM stated that it will undertake a scoping study into a Stage 2 expansion to 450kt/yr, to align with AJM’s Chinese partners growth plans.

Beer & Co has modelled this option.

### Mining Inventory

At the time of the DFS, AJM reported

- 39.2Mt of Resources, grading 1.02% Li<sub>2</sub>O for 400kt of contained Li<sub>2</sub>O;
- 20.3Mt of Reserves, grading 1.06% Li<sub>2</sub>O for 215kt of contained Li<sub>2</sub>O.

**The project current has 20 years in Reserves and a further potential further 8 years in Resources**

In January 2017, AJM increased these estimates to :

- 42.6Mt in Resources, grading 1.00% Li<sub>2</sub>O for 424kt of contained Li<sub>2</sub>O; and
- 30.1Mt of Reserves grading 1.04% Li<sub>2</sub>O for 313kt of contained Li<sub>2</sub>O.

At a mining rate of 1.54Mt/yr, this gives a 20 to nearly 30 year project life.

**Beer & Co notes that AJM has significant further areas of known mineralisation within its existing Mining Lease area**

Figure 7 comes from AJM’s 22 September 2016 announcement on its Mineral Resources Estimate and shows the Southern Target Area to be drilled for a possible increase in Resources.

There is also scope for infill drilling to increase the resources estimate, as indicated in Figure 8.

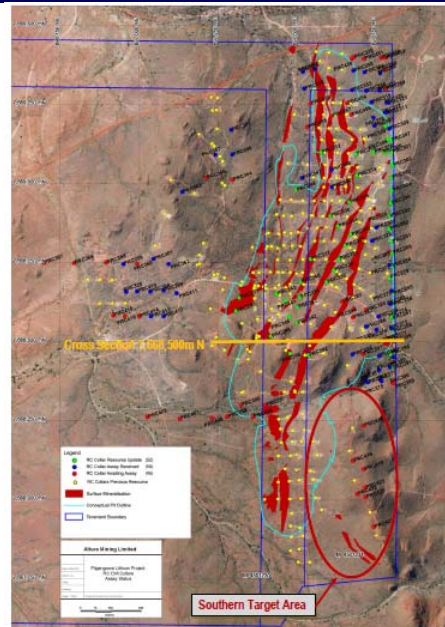
**Beer & Co expects that AJM will increase its Resources by further drilling.**

As shown in Figure 9, AJM has significant areas under title, further to the area included in the Mining Lease which is the subject of the DFS.

Also : AJM has the potential to purchase ore from other, nearby lease areas.

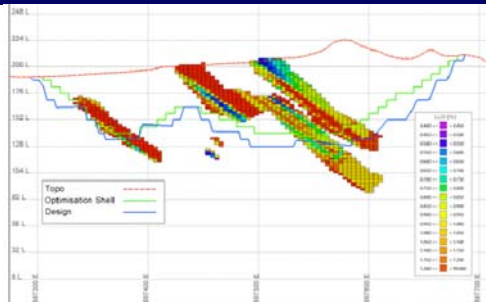
The key in AJM’s scoping study will be drilling to increase Resources.

**Figure 7 : Potential extension**



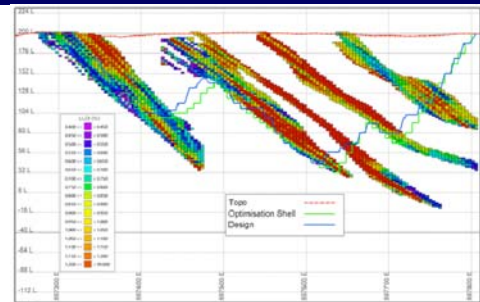
Source : AJM ASX announcement 22 Sept. 2016

**Figure 8a : Infill potential, Pilgangoora**



Source : AJM ASX announcement 22 Sept. 2016

**Figure 8b : Further infill potential**



Source : AJM ASX announcement 22 Sept. 2016

**AJM is well funded (indeed, over-funded) to get into positive cashflow**

**Beer & Co expects it will cost about \$80m - \$100m to double production as sufficient infrastructure is in place.**

**Mining is planned to be a single shift for 1.54Mt/yr, so a second shift will double ore production, with no further capital**

### Funding

AJM is well funded to develop its base case 220kt/yr project, as shown in Figure 4.

This means that AJM has the financial resources to be able to undertake the drilling required.

### Expected Capital Cost

Figure 10 shows the details of the capital cost estimated by AJM as part of the September 2016 DFS.

Beer & Co.'s interpretation is that to double capacity would require a further investment of about \$A 80m - 100m, given some costs are sunk.

### Impact

Beer & Co assumes that the expansion project can proceed quickly once the mining inventory is defined as mining and processing have already been defined.

For the purposes of analysis, Beer & Co has assumed that a commitment is made in about 12 months from now.

Figure 11 shows the results; as an extension of the data in Figure 2.

**Figure 9 : AJM further tenement areas**



Source : AJM presentation, May 2017

**Figure 10 : AJM estimated capital costs**

Financial Results	Cost A\$M
Site Establishment	\$0.12
Mine Development	\$11.89
Process Plant Supply and Install	\$89.10
Process Plant Support Facilities (Dedicated)	\$0.49
Non Process Infrastructure	\$8.74
Road Upgrade*	\$7.94
Camp	\$3.78
Owners Cost	\$10.00
Sustaining Capital (escalated)	\$7.64
<b>TOTAL</b>	<b>\$139.70</b>

Source : AJM ASX announcement 22 September 2016

**Figure 11 : Beer & Co.'s projected production, from expansion case**

	Dec. 17	Mar. 18	Jun. 18	Sep. 18	Dec. 18	Mar. 19	Jun. 19	Sep. 19	Dec. 19	Mar. 20	Jun. 20	Sep. 20	Dec. 20	Mar. 21	Jun. 21
Ore mined	0 kt	131 kt	300 kt	375 kt	375 kt	375 kt	375 kt	506 kt	675 kt	755 kt	760 kt	798 kt	798 kt	798 kt	798 kt
Waste moved	0 kt	344 kt	786 kt	982 kt	982 kt	982 kt	982 kt	1,326 kt	1,774 kt	1,984 kt	1,997 kt	2,096 kt	2,338 kt	2,653 kt	2,653 kt
Ore Processed	0 kt	66 kt	216 kt	338 kt	375 kt	375 kt	375 kt	441 kt	591 kt	715 kt	758 kt	779 kt	798 kt	798 kt	798 kt
Li2O grade	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.13 %	1.12 %	1.05 %
Recovery	70 %	70 %	74 %	78 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %
Li2O recovered	0 t	515 t	1,793 t	2,962 t	3,464 t	3,464 t	3,464 t	4,071 t	5,456 t	6,605 t	6,998 t	7,194 t	7,367 t	7,342 t	6,886 t
Conc grade	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %
Li2O concentrate	0 t	8,589 t	29,879 t	49,366 t	57,738 t	57,738 t	57,738 t	67,842 t	90,937 t	110,087 t	116,631 t	119,902 t	122,789 t	122,362 t	114,768 t

Source : Beer & Co estimates

**The expansion is very high returning project, eve with lower product prices**

Figure 12 shows Beer & Co.'s projected financial outcomes from the potential expansion.

It shows that Beer & Co projects that AJM has more than adequate financial resources at this time to undertake the required feasibility assessment and also to develop the project.

It also shows very strong returns from the expansion, despite prices falling over time.

**Figure 12 : Beer & Co.'s projection of financial outcomes from expansion**

AUD m	Dec. 17	Mar. 18	Jun. 18	Sep. 18	Dec. 18	Mar. 19	Jun. 19	Sep. 19	Dec. 19	Mar. 20	Jun. 20	Sep. 20	Dec. 20	Mar. 21	Jun. 21
Spodumene, 6% Li2O	US\$ 900/t	US\$ 750/t	US\$ 750/t	US\$ 750/t	US\$ 750/t	US\$ 700/t	US\$ 700/t	US\$ 700/t	US\$ 700/t	US\$ 650/t	US\$ 650/t	US\$ 650/t	US\$ 650/t	US\$ 650/t	US\$ 650/t
AUD/USD	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750
Revenue	0.0	8.6	29.9	49.4	57.7	53.9	53.9	63.3	84.9	95.4	101.1	103.9	106.4	106.0	99.5
Production Costs	0.0	(5.6)	(13.4)	(17.8)	(18.9)	(18.7)	(18.7)	(22.7)	(29.2)	(33.2)	(34.2)	(34.4)	(35.4)	(36.2)	(35.6)
Corporate costs	(0.4)	(0.4)	(0.4)	(1.5)	(0.4)	(0.4)	(0.4)	(1.5)	(0.4)	(0.4)	(0.4)	(1.5)	(0.4)	(0.4)	(0.4)
Dep'n & Amort'sn	0.0	(1.0)	(3.1)	(4.8)	(5.3)	(5.4)	(5.4)	(5.7)	(5.9)	(5.9)	(5.9)	(6.0)	(6.0)	(6.0)	(6.0)
<b>EBIT</b>	<b>(0.4)</b>	<b>1.6</b>	<b>13.0</b>	<b>25.3</b>	<b>33.1</b>	<b>29.4</b>	<b>29.4</b>	<b>33.5</b>	<b>49.4</b>	<b>55.9</b>	<b>60.5</b>	<b>62.0</b>	<b>64.6</b>	<b>63.5</b>	<b>57.6</b>
Project Cap.Ex	(46.2)	(6.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Expansion Cap.ex	(7.5)	(7.5)	(5.0)	(25.0)	(25.0)	(25.0)	(25.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net Cash Balance</b>	<b>52</b>	<b>38</b>	<b>32</b>	<b>39</b>	<b>52</b>	<b>63</b>	<b>73</b>	<b>105</b>	<b>161</b>	<b>201</b>	<b>262</b>	<b>303</b>	<b>369</b>	<b>408</b>	<b>468</b>

Source : Beer &amp; Co estimates

## Revised Valuation

### Prior to Expansion

Figure 13 shows Beer & Co.'s valuation of AJM, taking into account the funding secured, including the equity issued, but not the project expansion.

**Figure 13 : Beer & Co.'s valuation - revised**

discount rate = 12.0 %	risk :	1 July 2017		28-Aug-17	
		100%	Product	per share	
Pilgangoora Reserves	90 %	\$ 484m	\$ 435m	26.9 c	27.1 c
franking credits	54 %	\$ 107m	\$ 58m	3.6 c	3.6 c
Resources	80 %	\$ 17m	\$ 13m	0.8 c	0.8 c
franking credits	48 %	\$ 7m	\$ 3m	0.2 c	0.2 c
Indonesian Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mining Services	90 %	\$ 4m	\$ 3m	0.2 c	0.2 c
Philippines Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mt Webber Iron Ore	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Lithium Corp	90 %	\$ 1m	\$ 1m	0.1 c	0.1 c
Corporate	100 %	(\$ 12m)	(\$ 12m)	(0.7c)	(0.7c)
Cash / Debt	100 %	\$ 13m	\$ 13m	0.8 c	1.0 c
Equity raisings	100 %	\$ 0m	\$ 0m	0.0 c	0.0 c
<b>TOTAL</b>		<b>\$ 622m</b>	<b>\$ 516m</b>	<b>31.9 c</b>	<b>32.4 c</b>
Shares on issue	1,541m	F P O shares	0.0m	Options	
	73m	issued FY18	6.4m	Perf Rights	

Source : Beer &amp; Co estimates

Beer & Co.'s risked base case valuation for AJM, at 1.54Mt/yr of ore for 220kt/yr of project, is 32.5c / share

This has been revised down due to the cost and amount of funding in place, and a lag from mining to product.

In Beer & Co.'s view, if the proposed expansion is begun in about 1`2 months, then it will be significantly de-risked

This valuation of 32.5c compares with our previous valuation of 35c, and is lower due to :

- The costs of the funds secured, both in terms of unit costs and also the amount secured; and
- A small revision in Beer & Co.'s projected production, introducing a lag between mining and processed product.

### With Expansion

Figure 14 shows the impact on Beer & Co.'s valuation of the expansion, assuming NO change in mining inventory.

In other words, the increase in value is due solely to the increased rate of throughput.

Any drilling success will result in an even greater valuation.

Beer & Co expects that AJM drilling over the next 6 to 9 months will result in an increase in the mining inventory, though we have not allowed for any benefit from the \$20m investment in drilling that we have allowed for.

**Figure 14 : Beer & Co.'s valuation – 450kt/yr**

discount rate = 12.0 %	risk :	1 July 2017		28-Aug-17	
		100%	Product	per share	
Pilgangoora Reserves	90 %	\$ 708m	\$ 637m	39.3 c	39.2 c
franking credits	54 %	\$ 172m	\$ 93m	5.7 c	5.7 c
Resources	80 %	\$ 81m	\$ 65m	4.0 c	4.0 c
franking credits	48 %	\$ 30m	\$ 15m	0.9 c	0.9 c
Expansion to 450kt/yr	60 %	\$ 286m	\$ 172m	10.6 c	10.7 c
franking credits	36 %	\$ 88m	\$ 32m	1.9 c	1.9 c
Indonesian Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mining Services	90 %	\$ 4m	\$ 3m	0.2 c	0.2 c
Philippines Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mt Webber Iron Ore	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Lithium Corp	90 %	\$ 1m	\$ 1m	0.1 c	0.1 c
Corporate	100 %	(\$ 10m)	(\$ 10m)	(0.6c)	(0.6c)
Cash / Debt	100 %	\$ 13m	\$ 13m	0.8 c	1.0 c
Equity raisings	100 %	\$ 0m	\$ 0m	0.0 c	0.0 c
<b>TOTAL</b>		<b>\$ 1,374m</b>	<b>\$ 1,021m</b>	<b>63 c</b>	<b>63 c</b>
Shares on issue	1,541m	F P O shares	0.0m	Options	
	73m	issued FY18	6.4m	Perf Rights	

Source : Beer &amp; Co estimates

As a result, even if the mining inventory is not increased, which we expect it will, then our un-risked valuation more than doubles

### Revised base case

At this stage, Beer & Co allows only a nominal value for the expansion

Comparing Figure 13 and Figure 14 shows a significant increase in the potential valuation of AJM, even after risk weighting.

Beer & Co is revising our base case valuation, as shown in Figure 15 to allow for the extra value from increasing the rate of throughput even without any success in increasing the mining inventory despite the significant potential to do so.

Figure 15 shows Beer & Co.'s revised base case.

**Figure 15 : Beer & Co.'s revised base case value**

discount rate = 12.0 %	risk :	1 July 2017		27-Sep-17	
		100%	Product	per share	
Pilgangoora Reserves	90 %	\$ 483m	\$ 435m	26.8 c	27.3 c
franking credits	54 %	\$ 108m	\$ 58m	3.6 c	3.7 c
Resources	80 %	\$ 17m	\$ 13m	0.8 c	0.8 c
franking credits	48 %	\$ 7m	\$ 3m	0.2 c	0.2 c
Expansion to 450kt/yr	60 %	\$ 20m	\$ 12m	0.7 c	0.7 c
Indonesian Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mining Services	90 %	\$ 4m	\$ 3m	0.2 c	0.2 c
Philippines Coal	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Mt Webber Iron Ore	90 %	\$ 0m	\$ 0m	0.0 c	0.0 c
Lithium Corp	90 %	\$ 1m	\$ 1m	0.1 c	0.1 c
Corporate	100 %	(\$ 12m)	(\$ 12m)	(0.7c)	(0.7c)
Cash / Debt	100 %	\$ 13m	\$ 13m	0.8 c	1.4 c
Equity raisings	100 %	\$ 0m	\$ 0m	0.0 c	0.0 c
<b>TOTAL</b>		<b>\$ 642m</b>	<b>\$ 528m</b>	<b>32.6 c</b>	<b>33.8 c</b>
Shares on issue	1,541m	F P O shares	0.0m	Options	
	73m	issued FY18	6.4m	Perf Rights	

Source : Beer &amp; Co estimates

Beer & Co.'s risked base case is adjusted to 34c/share

While the premium of our risked base case valuation to the share price is not enough to justify a Strong BUY, we retain a Strong BUY recommendation due to the value of the expansion potential

Strong BUY

### Conclusions

Beer & Co confirms our Strong BUY recommendation on AJM.

Beer & Co expects that we will revise our valuation upwards when AJM announces the results of its scoping study.

AJM is fully funded to bring the Pilgangoora project into operation, and also for its expansion.





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The analyst responsible for this research report certifies that all of the views expressed reflect his personal views about the securities and the issuer.

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**Recommendation :** Beer & Co's investment recommendation is driven by the difference between our base case, risked valuation and the share price at the time. A Strong BUY recommendation means a very large difference (eg. over 100%), while BUY means a significant difference and Accumulate means a small, but positive difference. The recommendation is not independent of the uncertainty in Beer & Co's valuation.

**Risk :** Risk relates to the potential, over the long run, for an investor to lose money; it is a function of both the difference between our base case valuation and the uncertainty in our valuation due to the degree of estimation and/or uncertainties about project execution. Speculative means a high chance of loss; High risk means a good chance of loss and medium means some chance of loss, given the company size.

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