

24 Sep 2020

## JUPITER MINES LTD (JMS)

### Production rebounds, as expected

Jupiter Mines Ltd (JMS) produced 0.840Mt manganese ore. Sales were 0.898Mt. 100% Tshipi EBITDA (ex royalties) for the quarter was \$76.5m (JMS share is 49.9%), lower than our expectation. JMS attributable cash was \$76m (JMS + attrib Tshipi cash at bank).

Operating cash flow from Tshipi was an outflow (\$9.3m), which is unusual. There was a delayed shipment (148kt) that would have boosted cash by ~A\$30m, but even still operating cash flow in the quarter was still below EBITDA due to semi-annual tax and royalties.

### Hartleys expects 1H DPS 0.6cps, unfranked

In early September, Tshipi declared a dividend to its shareholders of ZAR330m for the 6mth to end August. JMS will receive ZAR156m (approximately A\$12.7m; net of withholding tax) and will also receive ZAR25m (approximately A\$2m) in marketing profits. We estimate that this equates to ~0.5-0.75cps DPS. We note that cash at JMS bank (ignore the Tshipi cash balance) is around 1.4cps, so it seems possible that the DPS is higher than the Tshipi dividend. Including Tshipi cash, there is ~3.8cps. Offsetting that though is the potential capital requirement in CY21 for the expansion. Hence, we assume only a 0.6cps DPS, but with upside risk (as is typical for JMS).

### Iron ore divestment

JMS has said it will divest the iron ore assets in Australia. Given they are minor versus the manganese assets, we attribute no direct value in our JMS valuation. We will review this assumption when more detail on the assets are disclosed.

### Retain Buy recommendation

Our base valuation is 41cps. Our spot (US\$3.60/dmtu) valuation is 53cps. We have a 45cps twelve month target + 2.25cps DPS (0.6cps + 1.65cps).

Fig. 1: Hartleys earnings changes

Tshipi (49.9%)	Unit	29 Feb 20 actual	28 Feb 21 Old	28 Feb 21 New	% chg	28 Feb 22 Old	28 Feb 22 New	% chg
Production (100%)	Mtpa	3.4	3.2	3.1	-1.9%	3.2	3.2	0.0%
Sales (100%)		3.4	2.8	2.8	-0.1%	3.2	3.2	
Received Price	US\$/dmtu	4.1	4.3	4.0	-6.0%	4.1	4.2	0.2%
AUD	US\$/A\$	0.67	0.66	0.71	7.6%	0.70	0.73	3.9%
ZAR	Rand/US\$	15.3	16.3	16.3	0.0%	14.6	14.6	0.0%
Tshipi Revenue (49.9%)	A\$m	376.4	329.7	287.8	-12.7%	343.1	331.6	-3.4%
	ZARm	3870.5	3569.4	3351.4	-6.1%	3507.6	3523.1	0.4%
Tshipi Cash Costs (49.9%)	A\$m	-241.2	-203.4	-192.7	-5.3%	-218.9	-213.3	-2.6%
	ZARm	-2480.2	-2202.7	-2243.9	1.9%	-2237.4	-2265.8	1.3%
	ZAR/t	-1461.9	-1580.9	-1612.0	2.0%	-1407.8	-1425.7	1.3%
Tshipi EBITDA (49.9%)	A\$m	135.2	126.2	95.1	-24.7%	124.3	118.3	-4.8%
- margin		36%	38%	33%	-13.7%	36%	36%	-1.5%
Tshipi, 100%, EBITDA	A\$m	271.0	253.0	190.6	-24.7%	249.0	237.1	-4.8%
Tshipi, 100%, Cash dist	A\$m	201.9	141.4	99.6	-29.6%	138.8	130.8	-5.7%
% of EBITDA		75%	56%	52%	-6.5%	56%	55%	-1.0%
Tshipi, 100%, Cash dist	ZARm	2,077	1,531	1,160	-24.2%	1,419	1,390	-2.0%
Tshipi, 100%, EBITDA	ZARm	2786.3	2738.9	2219.4	-19.0%	2545.4	2519.5	-1.0%
Tshipi, 100%, EBITDA	US\$	182.4	167.6	135.8	-19.0%	174.3	172.5	-1.0%
Tshipi NPAT (49.9%)	A\$m	98.8	111.5	89.0	-20.1%	110.0	105.8	-3.9%
payout		102%	63%	56%	-11.8%	63%	62%	-1.9%
DPS		0.0475	0.0325	0.0225	-30.8%	0.030	0.030	0.0%

Source: Hartleys Estimates

Share Price	\$0.275
Valuation	\$0.41
12mth price target	\$0.45

#### Brief Business Description:

Manganese producer in Sth Africa (via 49.9% interest in Tshipi mine)

#### Hartleys Brief Investment Conclusion

Long mine life, low cost and highly incentivised management for shareholder friendly capital management. Risks are Sth Africa sovereign risk & manganese price volatility.

#### Chairman & MD

Brian Gilbertson (Chairman)

Priyank Thapliyal (CEO)

#### Top Shareholders

AMCI	17.2%
Stichting Pensioenfonds	12.9%
Posco	6.9%

#### Company Address

Level 10, 16 St Georges Terrace  
Perth WA, 6000, Australia

Issued Capital 1959.0m

- fully diluted 1959.0m

Market Cap A\$538.7m

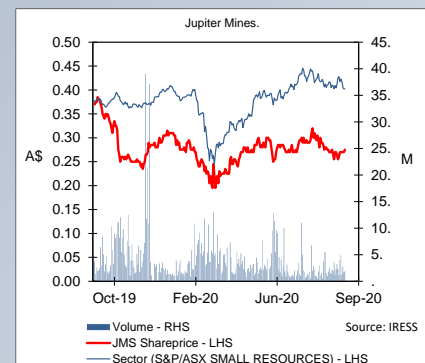
- fully diluted A\$538.7m

Cash (31 Aug 20p) A\$76.0m

Debt (31 Aug 20p) A\$0.0m

EV A\$462.7m

	Mt	Mn grade
Resources (Mt)	431.7	33%
Reserves (Mt)	94.24	36.49



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**Jupiter Mines Ltd  
JMS**
**Key Market Information**

Share price	AS0.275
Issued Capital	1959.0m
Options, performance rights and partly paid shares ITM	0.0m
Options, performance rights and partly paid shares	0.0m
Issued Capital (fully diluted inc. all options)	1959.0m
Issued Capital (fully diluted inc. all options and new capital)	1959.0m
Net Cash	\$76.0m
Twelve month price target	AS0.45
Valuation	AS0.41

Tshipi (49.9%)	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
<b>Tshipi Revenue (49.9%)</b>	<b>A\$m, CFR</b>	<b>497.9</b>	<b>376.4</b>	<b>287.8</b>	<b>331.6</b>
	ZARm	5079.4	3870.5	3351.4	3523.1
<b>Tshipi Cash Costs (49.9%)</b>	<b>A\$m CFR</b>	<b>-236.4</b>	<b>-241.2</b>	<b>-192.7</b>	<b>-213.3</b>
	ZARm	-2411.8	-2480.2	-2243.9	-2265.8
Tshipi EBITDA (49.9%)	A\$m	261.5	135.2	95.1	118.3
- margin		53%	36%	33%	36%
<b>Tshipi, 100% EBITDA</b>	<b>A\$m</b>	<b>524.0</b>	<b>271.0</b>	<b>190.6</b>	<b>237.1</b>
Tshipi, 100%, Cash dist	A\$m	316.1	201.9	99.6	130.8
60% of EBITDA		60%	75%	52%	55%
Tshipi, 100%, EBITDA	ZARm	5345.9	2786.3	2219.4	2519.5
Tshipi, 100%, EBITDA	US\$	376.9	182.4	135.8	172.5
<b>Tshipi, 100% EBITDA - reported</b>	<b>A\$m</b>	<b>585.3</b>	<b>314.9</b>	<b>225.6</b>	<b>279.0</b>

<b>Tshipi NPAT (49.9%)</b>	<b>A\$m</b>	<b>189.5</b>	<b>98.8</b>	<b>89.0</b>	<b>105.8</b>
payout		83%	102%	56%	62%

JMS	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
<b>JMS Reported Revenue</b>	<b>A\$m</b>	<b>0.0</b>	<b>0.0</b>		
<b>JMS Reported COGS</b>	<b>A\$m</b>	<b>0.0</b>	<b>0.0</b>		
<b>JMS Reported GP</b>	<b>A\$m</b>	<b>0.0</b>	<b>0.0</b>		
<b>JMS Reported Profit</b>	<b>A\$m</b>	<b>142.2</b>	<b>95.1</b>		
<b>JMS Balance Sheet</b>	<b>Unit</b>	<b>28 Feb 19a</b>	<b>29 Feb 20a</b>	<b>28 Feb 21f</b>	<b>28 Feb 22f</b>
<b>Cash</b>	<b>A\$m</b>	<b>72.8</b>	<b>29.3</b>	<b>44.8</b>	<b>39.4</b>
Other Current Assets	A\$m	85.2	40.4	40.4	40.4
<b>Total Current Assets</b>	<b>A\$m</b>	<b>158.0</b>	<b>69.7</b>	<b>85.3</b>	<b>79.8</b>
Property, Plant & Equip.	A\$m	0.0	0.0	0.0	0.0
Exploration	A\$m	10.8	11.8	11.8	11.8
Investments/other	A\$m	424.8	438.6	438.6	438.6
<b>Tot Non-Curr. Assets</b>	<b>A\$m</b>	<b>435.6</b>	<b>450.3</b>	<b>450.3</b>	<b>450.3</b>
<b>Total Assets</b>	<b>A\$m</b>	<b>593.6</b>	<b>520.0</b>	<b>535.6</b>	<b>530.1</b>
Short Term Borrowings	A\$m	-	-	-	-
Other	A\$m	132.9	37.8	37.8	37.8
<b>Total Curr. Liabilities</b>	<b>A\$m</b>	<b>132.9</b>	<b>37.8</b>	<b>37.8</b>	<b>37.8</b>
Long Term Borrowings	A\$m	-	-	-	-
Other	A\$m	51.2	56.2	56.2	56.2
<b>Total Non-Curr. Liabil.</b>	<b>A\$m</b>	<b>51.2</b>	<b>56.2</b>	<b>56.2</b>	<b>56.2</b>
<b>Total Liabilities</b>	<b>A\$m</b>	<b>184.1</b>	<b>94.0</b>	<b>94.0</b>	<b>94.0</b>
<b>Net Assets</b>	<b>A\$m</b>	<b>409.5</b>	<b>426.0</b>	<b>441.6</b>	<b>436.1</b>
Net Debt (net cash)	A\$m	-72.8	-29.3	-44.8	-39.4

JMS Cashflow	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
Operating Cashflow	A\$m	158.4	84.8	46.5	61.5
Income Tax Paid	A\$m	-12.4	-2.7	-4.5	-5.3
Interest & Other	A\$m	0.3	1.2	0.0	0.0
<b>Operating Activities</b>	<b>A\$m</b>	<b>146.4</b>	<b>83.3</b>	<b>42.0</b>	<b>56.2</b>
Property, Plant & Equip.	A\$m	0.0	0.0	0.0	0.0
- off JMS b/s (ie 50% Tshipi)		0.0	0.0	-11.0	-28.5
Exploration and Devel.	A\$m	-0.9	-1.0	0.0	0.0
Other	A\$m	0.0	0.0	0.0	0.0
<b>Investment Activities</b>	<b>A\$m</b>	<b>-0.9</b>	<b>-1.0</b>	<b>0.0</b>	<b>0.0</b>
Borrowings	A\$m	0.0	0.0	0.0	0.0
Equity or "tbc capital"	A\$m	-51.1	0.0	0.0	0.0
Dividends Paid	A\$m	-97.9	-127.3	-26.4	-61.7
<b>Financing Activities</b>	<b>A\$m</b>	<b>-149.1</b>	<b>-127.3</b>	<b>-26.4</b>	<b>-61.7</b>

Net Cashflow	A\$m	-3.6	-45.0	15.6	-5.5
Shares	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
Ordinary Shares - End	m	1959.0	1959.0	1959.0	1959.0
Ordinary Shares - Weighted	m	1967.8	1959.0	1959.0	1959.0
Diluted Shares - Weighted	m	1967.8	1959.0	1959.0	1959.0
<b>Ratio Analysis</b>	<b>Unit</b>	<b>28 Feb 19a</b>	<b>29 Feb 20a</b>	<b>28 Feb 21f</b>	<b>28 Feb 22f</b>
Cashflow Per Share	A\$ cps	7.4	4.3	2.1	2.9
Earnings Per Share	A\$ cps	nm	nm	nm	nm
Dividends Per Share	AUD	0.075	0.0475	0.0225	0.030
Franking		0%	0%	0%	0%
Net Debt / Net Debt + Equity	%	na	na	na	na
Interest Cover	X	na	na	na	na

Analyst: Trent Barnett

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"tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained.

Sources: IRESS, Company Information, Hartleys Research

24 September 2020

Buy

**Directors**

Brian Gilbertson (Chairman)	Level 10, 16 St Georges Terrace
Priyank Thapliyal (CEO)	Perth WA, 6000, Australia
Paul Murray (Non-exec)	Tel: +61 8 9346 5500
Andrew Bell (Non-exec)	Fax: +61 8 9481 5933
Yeongjin Heo (Non-exec, Posco Nominee)	Web: www.jupitermines.com
Hans Mende (Non-exec, AMCI nominee)	
Melissa North - CFO	

**Top Shareholders**

	%
AMCI	17.2%
Stichting Pensioenfonds	12.9%
Posco	6.9%

**Reserves & Resources**

	Mt	% Mn	Attributable to JMS
Measured	92	34.2	JMS Attrib: 46Mt
Indicated	112	33.7	JMS Attrib: 56Mt
Inferred	227	32.5	JMS Attrib: 113Mt
<b>TOTAL RESOURCES</b>	<b>432</b>	<b>33.2</b>	<b>JMS Attrib: 215Mt</b>

**Reserve**

	94	36.5	JMS Attrib: 47Mt
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Production Summary	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
Mill Throughput	Mt	3.8	3.7	3.3	3.50
Saleable Product	Mt	3.4	3.4	3.1	3.19
- grade Mn	Mt	36.5%	36.5%	36.5%	36.5%
Saleable Product (attrib to JMS)	Mt	1.7	1.7	1.5	1.6
Sales (100%)	Mt		3.4	2.8	3.2
Mass recovery		90.3%	91.0%	93.7%	91.0%
Mine Life	%	32.58	30.58	29.58	28.58
Assumed Mine Inventory (end)	Mt	153.5	146.0	142.5	139.1

Costs	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
Cost per milled tonne	A\$/t	108.1	95.2	117.7	110.2
EBITDA / tonne milled ore	A\$/t	138.0	72.2	57.4	67.6
	US\$/t	99.3	48.6	40.9	49.2
Total cost / tonne product cfr	A\$/t	138	142	138	134
	ZAR/t	1,412	1,455	1,609	1,423
	ZAR\$/dmu	39	40	44	38.98
	US\$/t	100	95	98	97
	US\$/dmu	2.7	2.6	2.7	2.7

**Price Assumptions**

	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f	
AUDUSD	0.72	0.67	0.71	0.73	
USDZAR	14.18	15.28	16.34	14.60	
AUDZAR	10.20	10.28	11.65	10.62	
Manganese: 44% benchmark cfr	US\$/dmu	7.31	5.95	4.63	4.74
Manganese: 44% benchmark cfr	US\$/t	322	262	204	209
Iron Ore 62% benchmark cfr	US\$/t	73.6	96.4	92.0	72.0

Tshipi received price cfr	US\$/t	209.7	148.7	147.0	151.5
	US\$/dmu	5.7	4.1	4.0	4.2
	ZAR\$/dmu	81.5	62.3	65.8	60.6
	A\$/dmu	8.0	6.1	5.7	5.7

**Valuation multiples @ 0.275**

	28 Feb 19a	29 Feb 20a	28 Feb 21a	28 Feb 22a	
EV/EBITDA	x	2.1	4.0	5.7	4.6
Div Yield	%	27.3%	17.3%	8.2%	10.9%

Hedging	Unit	28 Feb 19a	29 Feb 20a	28 Feb 21f	28 Feb 22f
none					

**Sensitivity Analysis**

Base Case	Valuation	FY21 pro-forma EBITDA
Spot Prices	0.41	95.1
	0.53 (29.0%)	113.3 (19.2%)
Spot USD/AUD 0.70, USD/ZAR 17.2, 44% Mn CFR \$4.7/dmu, 37% Mn fob Sth Africa \$3.6/dmu		
AUDUSD +/-10%	0.31 / 0.53 (-24.0% / 29.4%)	82.8 / 110.1 (-12.9% / 15.7%)
Manganese +/-10%	0.54 / 0.28 (31.1% / -31.1%)	110.8 / 79.4 (16.6% / -16.6%)
Production +/-10%	0.52 / 0.30 (26.1% / -26.1%)	107.4 / 82.8 (12.9% / -12.9%)

**Unpaid Capital**

Year Expires	\$m	Avg price	% ord
28-Feb-21	0.0	0.00	0%
28-Feb-22	0.0	0.00	0%
28-Feb-23	0.0	0.00	0%
29-Feb-24	0.0	0.00	0%
28-Feb-25	0.0	0.00	0%
<b>TOTAL</b>	<b>0.0</b>	<b>nm</b>	<b>0%</b>

Valuation	A\$/shr
49.9% Tshipi (pre-tax NAV at disc. rate of 10%)	0.59
Tshipi Tax (NPV future liability)	-0.21
Marketing	0.02
Other Assets/Exploration	0.00
Forwards	0.00
Corporate Overheads	-0.02
Net Cash (Debt)	0.05
Withholding Tax	-0.03
Options & Other Equity	0.00
<b>Total</b>	<b>0.41</b>

Fig. 2: Earnings Changes

Tshipi (49.9%)	Unit	29 Feb 20	28 Feb 21			28 Feb 22			28 Feb 23		
		actual	Old	New	% chg	Old	New	% chg	Old	New	% chg
Production (100%)	Mtpa	3.4	3.2	3.1	-1.9%	3.2	3.2	0.0%	3.4	3.4	0.0%
Sales (100%)		3.4	2.8	2.8	-0.1%	3.2	3.2		3.4	3.4	0.0%
Received Price	US\$/dmu	4.1	4.3	4.0	-6.0%	4.1	4.2	0.2%	4.2	4.2	0.0%
AUD	US\$/A\$	0.67	0.66	0.71	7.6%	0.70	0.73	3.9%	0.73	0.73	0.1%
ZAR	Rand/US\$	15.3	16.3	16.3	0.0%	14.6	14.6	0.0%	14.7	14.7	0.0%
Tshipi Revenue (49.9%)	A\$m	376.4	329.7	287.8	-12.7%	343.1	331.6	-3.4%	355.3	355.1	-0.1%
	ZARm	3870.5	3569.4	3351.4	-6.1%	3507.6	3523.1	0.4%	3825.3	3825.6	0.0%
Tshipi Cash Costs (49.9%)	A\$m	-241.2	-203.4	-192.7	-5.3%	-218.9	-213.3	-2.6%	-229.2	-229.1	0.0%
	ZARm	-2480.2	-2202.7	-2243.9	1.9%	-2237.4	-2265.8	1.3%	-2466.9	-2467.8	0.0%
	ZAR/t	-1461.9	-1580.9	-1612.0	2.0%	-1407.8	-1425.7	1.3%	-1439.1	-1439.6	0.0%
Tshipi EBITDA (49.9%)	A\$m	135.2	126.2	95.1	-24.7%	124.3	118.3	-4.8%	126.2	126.0	-0.1%
- margin		36%	38%	33%	-13.7%	36%	36%	-1.5%	36%	35%	-0.1%
Tshipi, 100%, EBITDA	A\$m	271.0	253.0	190.6	-24.7%	249.0	237.1	-4.8%	252.9	252.6	-0.1%
Tshipi, 100%, Cash dist	A\$m	201.9	141.4	99.6	-29.6%	138.8	130.8	-5.7%	116.1	115.9	-0.1%
% of EBITDA		75%	56%	52%	-6.5%	56%	55%	-1.0%	46%	46%	0.0%
Tshipi, 100%, Cash dist	ZARm	2,077	1,531	1,160	-24.2%	1,419	1,390	-2.0%	1,250	1,249	-0.1%
Tshipi, 100%, EBITDA	ZARm	2786.3	2738.9	2219.4	-19.0%	2545.4	2519.5	-1.0%	2722.2	2721.0	0.0%
Tshipi, 100%, EBITDA	US\$	182.4	167.6	135.8	-19.0%	174.3	172.5	-1.0%	185.4	185.3	0.0%
Tshipi NPAT (49.9%)	A\$m	98.8	111.5	89.0	-20.1%	110.0	105.8	-3.9%	111.4	111.3	-0.1%
payout		102%	63%	56%	-11.8%	63%	62%	-1.9%	52%	52%	0.0%
DPS		0.0475	0.0325	0.0225	-30.8%	0.030	0.030	0.0%	0.025	0.025	0.0%

Source: Hartleys Estimates

Fig. 3: Understanding the quarterly accounts

	UNIT	Q2 FY2021	Q1 FY2021	YTD FY2021	Q2 FY2020	
	BCM	3,414,742	2,361,031	5,775,773	2,973,867	
	Tonnes	840,469	694,769	1,535,238	890,995	
	Tonnes	898,107	321,733	1,219,840	892,019	
CIF includes shipping to China	Average CIF price achieved (high grade lumpy)*	USD/dmtu	4.67	4.21	4.58	5.52
Costs excludes shipping to China, but includes royalties	Average FOB cost of production	ZAR/dmtu	36.13	36.10	35.99	32.30
	Average exchange rate	USD/ZAR <sup>1</sup>	17.02	17.78	17.40	14.58
	Average exchange rate	AUD/ZAR <sup>1</sup>	11.98	11.28	11.63	10.06
Sales exclude shipping to China	Sales revenue (net of realisation costs)	AUD million <sup>2</sup>	154.1	52.3	209.5	185.0
EBITDA excludes royalties	Earnings before interest, tax and depreciation ("EBITDA")	AUD million <sup>2</sup>	76.5	35.8	113.6	101.5
	Net profit after tax *	AUD million <sup>2</sup>	51.1	23.5	75.4	62.5
	Net cash from operating activities	AUD million <sup>2</sup>	(9.3)	48.0	36.9	86.3
Tshipi cash at bank excludes the cash on JMS balance sheet	Cash at bank	AUD million <sup>2</sup>	100.4	117.7	100.4	114.0

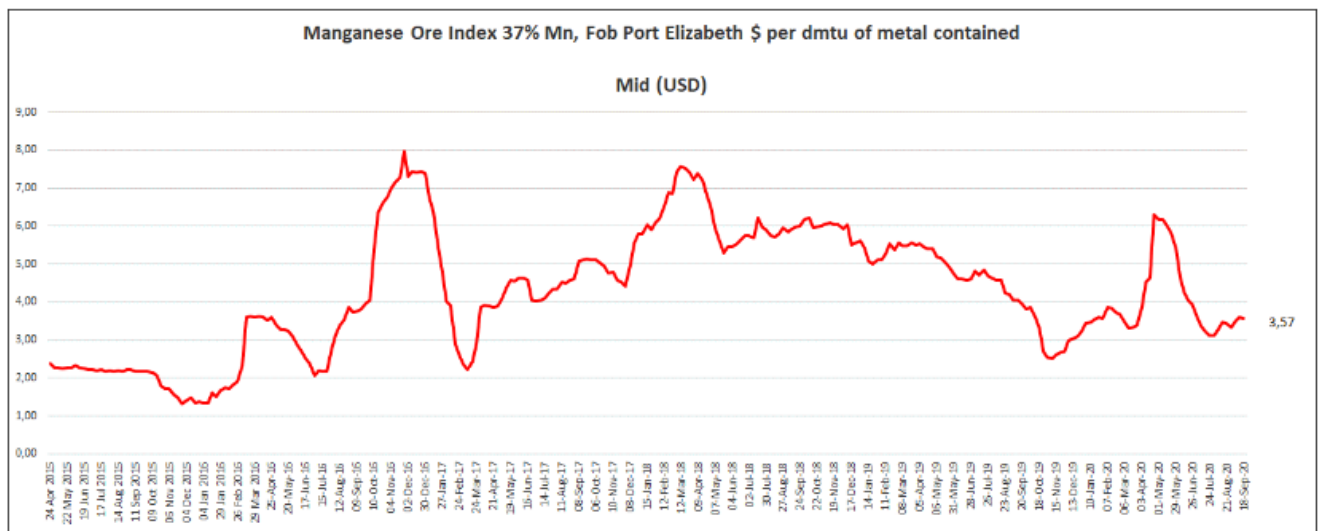
Source: JMS

**Fig. 4: Key assumptions and risks for valuation**

Assumption	Risk of not realising assumption	Downside risk to valuation if assumption is incorrect	Comment
Mine life	Low	High	We assume a long mine life. The mining right expires in 2040 but we assume it is extended.
Expansion to 4.5mtpa proceeds, but slower than guidance and higher capex	Moderate	High	We assume the expansion proceeds, but we are more conservative than early guidance. Our conservative assumptions means that the expansion only adds around 15% to our valuation.
Discount rate	Moderate	Upside	We assume a discount rate of 10%, real.
FX	Moderate	Meaningful	We assume that the Rand appreciates modestly in near term, and then depreciates again.
Selling prices fall from current prices	Moderate	Most significant	We assume manganese selling prices fall.
Project interest	Low	Modest	We assume JMS retains its 49.9% interest in Tshipi.
<b>Conclusion</b> <i>We believe our assumptions around manganese selling prices are the most important for our valuation.</i>			

Source: Hartleys

**Fig. 5: Manganese Price (37% DMTU, fob)**



Source: JMS

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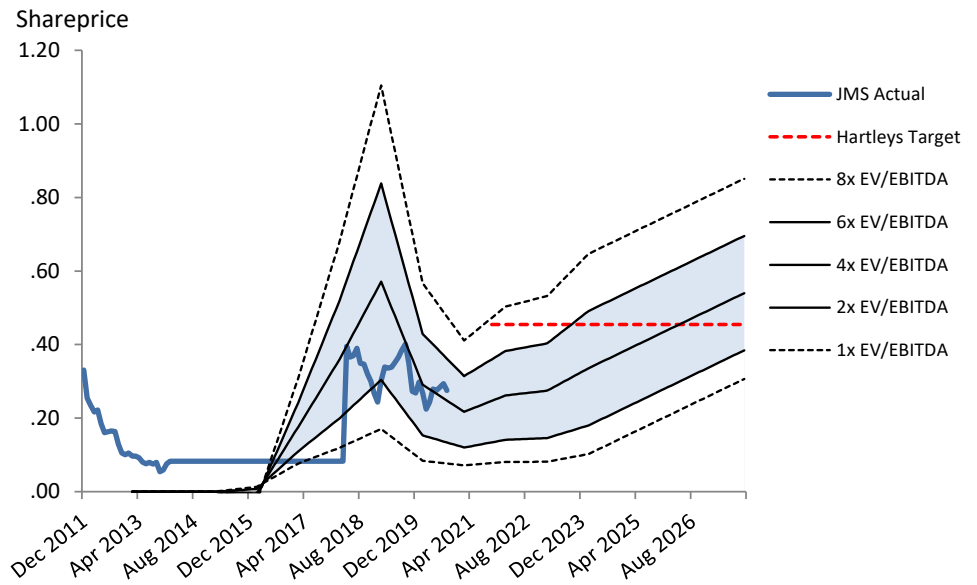
## PRICE TARGET

We have a twelve-month price target of 45cps (from 47cps previous).

Price Target Methodology	Weighting	Spot	12 mth out
NPV base case valuation	80%	\$0.41	\$0.44
NPV spot valuation	1%	\$0.53	\$0.57
NPV no 4.5mtpa expansion (base case prices)	5%	\$0.36	\$0.38
NPV no 4.5mtpa expansion (spot case prices)	1%	\$0.46	\$0.50
4x EV/EBITDA	5%	\$0.46	\$0.53
10x EV/EBITDA	1%	\$1.08	\$1.27
Dividend yield 6.0% base case	5%	\$0.38	\$0.50
Dividend yield 6.0% spot prices	2%	\$0.46	\$0.46
<b>Risk weighted composite</b>		<b>\$0.42</b>	
<b>12 Months Price Target</b>		<b>\$0.45</b>	
Shareprice - Last		\$0.2750	
<b>12 mth total return</b>		<b>74%</b>	

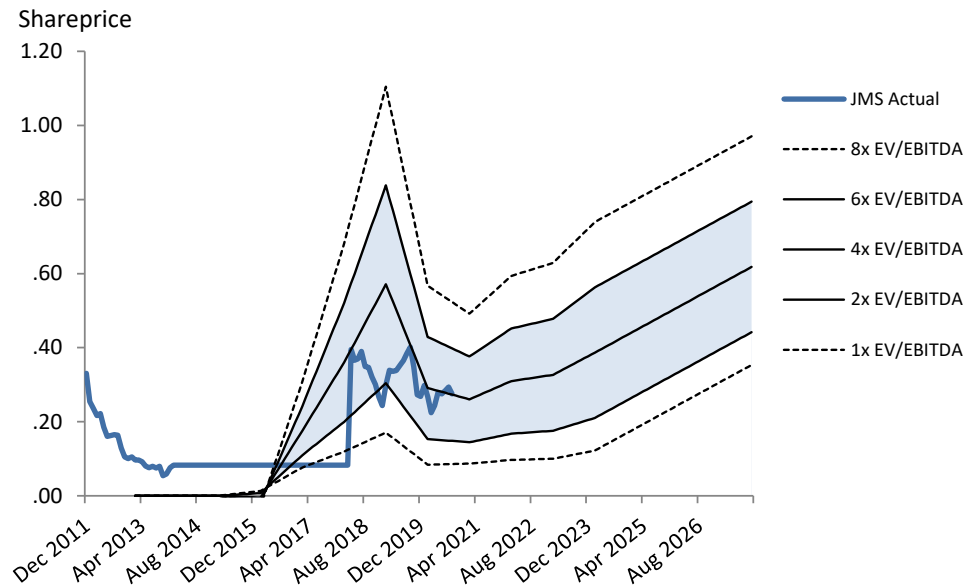
Source: Hartleys Research Estimates

**Fig. 6: Using Hartleys base case commodity forecasts**



Source: Hartleys Estimates, IRESS

**Fig. 7: Using spot commodity prices**



Source: Hartleys Estimates, IRESS

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Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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