

### GALENA MINING LIMITED (G1A)

#### Abracadabra; G1A pulls a great deal out of the hat

Tokyo listed (ticker 5707) and non-ferrous metals smelter, Toho Zinc, has executed an agreement with Galena Mining Limited (G1A) to acquire 40% of Abra Mining Pty Ltd (AMPL). Toho will invest A\$90M for the 40% ownership; A\$10M cash plus financing A\$80M of Abra's initial capital expenditure for project development. We assume a 1.2Mtpa plant with estimated capex of A\$180M.

Net to G1A (look through) is \$58M for the sale of 40%. Hence, the look through value for 100% of the project from the transaction is A\$145M (43cps given 337M shares on issue and escrowed), which is lower than our previous (preliminary) valuation. However, it now means that the financing structure for Abra is more certain. The transaction is in three tranches (A\$20M on transaction close, \$10M on DFS and A\$60M on project finance). We estimate that the JV should be capitalised with sufficient equity from this transaction and the balance of capital should be able to be debt financed. If there is a higher capital requirement, contributions will be on a 60/40 basis.

The transaction is still conditional, including due diligence (negative \$2M impact threshold). Other terms and conditions include funding support from Toho whereby it will assist AMPL to procure, by leveraging the attractive programmes available to it from its relationships with Japanese lenders, a contribution to project financing debt, which we estimate will be A\$100M. AMPL's board will consist of five directors, three to be appointed by G1A and two by Toho. The Chairman of AMPL will be selected from within the three G1A representatives.

Note that AMPL is the owner of the Abra Lead-Silver Project in WA and a wholly owned subsidiary of G1A. The \$10M cash payment to G1A is repayment of an intercompany loan between AMPL and G1A.

#### Toho already has an Australian presence

Toho has four core business areas; mineral resources, smelting and refining, environment and recycling, and electronic components. In 2010, Toho acquired the publicly-listed Australian mining company CBH Resources Limited to increase Toho's self-sufficiency for zinc and lead ore. Through CBH, Toho continues to be a significant miner of lead, zinc and silver in Australia via the Rasp and Endeavor mines in New South Wales.

#### Fantastic in terms of de-risking financing

The deal looks to be very good for G1A. It leaves little to no equity requirement to fund the Abra and de-risks the project in terms of financing. We have updated our model as per the details of the deal announcement and model 60% ownership of the project to G1A. We assume G1A requires A\$60M of debt funding (A\$100M for the whole project – 100%). We await release of the Optimised PFS, which may include capital expenditure decreases, and model Abra as per the latest mine plan (16.4Mt @ 8.2% Pb & 22g/t Ag). We maintain our Speculative Buy recommendation with a NAV of 46cps (up from 44cps), spot NAV is 59cps and our 12-month price target is 50cps (up from 41cps). We estimate G1A's cash post the Toho deal at \$61.2M.

31 Jan 2019

|                          |         |
|--------------------------|---------|
| Share Price              | \$0.245 |
| Preliminary Valuation    | \$0.46  |
| Price Target - 12 months | \$0.50  |

#### Brief Business Description:

Single asset, WA focussed, lead-silver (+zinc, copper, gold) explorer/developer

#### Hartleys Brief Investment Conclusion

The Abra deposit was first drilled in 1981 and has previously been defined to depths of over 500m below surface. –A\$20M has been spent by previous owners in defining a high tonnage, lower grade deposit. G1A listed in mid-2017 and has defined a high grade resource of 37.4Mt @ 7.5% Pb & 18g/t Ag.

#### Chairman & CEO

Adrian Byass (Non-Exec Chairman)  
Alexander Molyneux (Managing Director)

#### Top Shareholders

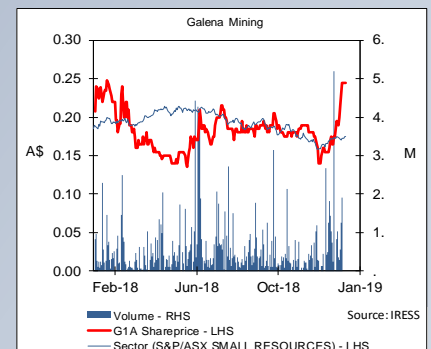
|                             |       |
|-----------------------------|-------|
| Bloomgold Resources Pty Ltd | 24.4% |
| Jonathan Downes             | 3.9%  |
| Adrian Byass                | 3.3%  |

#### Company Address

Level 1, 329 Hay Street  
Subiaco, WA 6008

|                             |          |
|-----------------------------|----------|
| Issued Capital              | 337.0m   |
| - fully diluted             | 388.3m   |
| Market Cap                  | A\$82.6m |
| - fully diluted             | A\$95.1m |
| Cash (post Toho investment) | A\$61.2m |
| Debt (est 31 Dec 2018)      | A\$0.0m  |
| EV                          | A\$21.4m |
| EV - fully diluted          | A\$31.8m |

|          | Mt   | Pb (%) | Ag (g/t) |
|----------|------|--------|----------|
| Resource | 37.4 | 7.5%   | 18       |
| Reserve  | 10.3 | 8.8%   | 24       |



Paul Howard  
Resources Analyst  
Ph: +61 8 9268 3045  
E: paul.howard@hartleys.com.au

Hartleys has assisted in the completion of a capital raising for Galena Mining Limited ("Galena") in the last 12 months for which it has earned fees. Hartleys has provided corporate advice within the past 12 months and continues to provide corporate advice to Galena, for which it has earned fees and continues to earn fees.

## SUMMARY MODEL

| Galena Mining<br>G1A  |                              | Share Price<br>\$0.245 |            | 31 January 2019<br>Speculative Buy |                              |                          |
|---|------------------------------|------------------------|------------|------------------------------------|------------------------------|--------------------------|
| <b>Key Market Information</b>   |                              |                        |            |                                    |                              |                          |
| Share Price   |                              | \$0.245                |            |                                    |                              |                          |
| Market Capitalisation - ordinary  |                              | A\$82.6m               |            |                                    |                              |                          |
| Net Cash (Debt)   |                              | \$61.2m                |            |                                    |                              |                          |
| Market Capitalisation - fully diluted   |                              | A\$95.1m               |            |                                    |                              |                          |
| EV  |                              | A\$21.4m               |            |                                    |                              |                          |
| Issued Capital  |                              | 337.0m                 |            |                                    |                              |                          |
| Options   |                              | 51.25m                 |            |                                    |                              |                          |
| Issued Capital (fully diluted inc. all options)   |                              | 388.3m                 |            |                                    |                              |                          |
| Issued Capital (fully diluted inc. all options and new capital)                                     |                              | 388.3m                 |            |                                    |                              |                          |
| Valuation   |                              | \$0.46                 |            |                                    |                              |                          |
| 12month price target  |                              | \$0.50                 |            |                                    |                              |                          |
| <b>Directors</b>  |                              |                        |            |                                    |                              |                          |
| Adrian Byass (Non-Exec Chairman)  |                              |                        |            |                                    |                              |                          |
| Alexander Molyneux (Managing Director)  |                              |                        |            |                                    |                              |                          |
| Jonathan Downes (Non-Exec Director)   |                              |                        |            |                                    |                              |                          |
| Oliver Cairns (Non-Exec Director)   |                              |                        |            |                                    |                              |                          |
| Timothy Morrison (Non-Exec Director)  |                              |                        |            |                                    |                              |                          |
| Stephen Brockhurst (Company Secretary)  |                              |                        |            |                                    |                              |                          |
| <a href="http://www.galenamining.com.au">www.galenamining.com.au</a>                                |                              |                        |            |                                    |                              |                          |
| <b>Company Information</b>  |                              |                        |            |                                    |                              |                          |
| Level 1, 329 Hay Street   |                              |                        |            |                                    |                              |                          |
| Subiaco, WA 6008  |                              |                        |            |                                    |                              |                          |
| P +61 8 6461 6350   |                              |                        |            |                                    |                              |                          |
| F +61 8 6210 1872   |                              |                        |            |                                    |                              |                          |
| <b>Top Shareholders</b>   |                              |                        |            |                                    |                              |                          |
|   |                              | m shares               | %          |                                    |                              |                          |
| Bloomgold Resources Pty Ltd (Timothy Morrison)  |                              | 82.3                   | 24.4%      |                                    |                              |                          |
| Jonathan Downes   |                              | 13.2                   | 3.9%       |                                    |                              |                          |
| Adrian Byass  |                              | 11.1                   | 3.3%       |                                    |                              |                          |
| <b>Reserves &amp; Resources</b>   |                              |                        |            |                                    |                              |                          |
|   |                              | Mt                     | Pb %       | Ag g/t                             | Pb (kt)                      | Ag (Moz)                 |
| <b>Reserve</b>  |                              |                        |            |                                    |                              |                          |
| Proved  |                              | -                      | -          | -                                  | -                            | -                        |
| Probable  |                              | 10.3                   | 8.8        | 24                                 | 906                          | 7.9                      |
| <b>Total</b>  |                              | <b>10.3</b>            | <b>8.8</b> | <b>24</b>                          | <b>906</b>                   | <b>8</b>                 |
| <b>Resource</b>   |                              |                        |            |                                    |                              |                          |
| Measured  |                              | -                      | -          | -                                  | -                            | -                        |
| Indicated   |                              | 15.0                   | 8.7        | 22                                 | 1305                         | 10.6                     |
| Inferred  |                              | 22.4                   | 6.7        | 15                                 | 1501                         | 11.1                     |
| <b>Total</b>  |                              | <b>37.4</b>            | <b>7.5</b> | <b>18</b>                          | <b>2,806</b>                 | <b>22</b>                |
| Mine Plan   |                              | 16.4                   | 8.2        | 22                                 | 1345                         | 11.6                     |
| <b>Production Summary (100%)</b>  |                              |                        |            |                                    |                              |                          |
|   | Unit                         | 30 Jun 19              | 30 Jun 20  | 30 Jun 21                          | 30 Jun 22                    | 30 Jun 23                |
| Mill Throughput   | Mt                           | -                      | -          | 0.60                               | 1.20                         | 1.20                     |
| Mined grade Pb  | %                            | -                      | -          | 8.2%                               | 8.2%                         | 8.2%                     |
| Mined grade Ag  | g/t                          | -                      | -          | 22                                 | 22                           | 22                       |
| Lead produced   | kt                           | -                      | -          | 46.7                               | 93.5                         | 93.5                     |
| Silver produced   | koz                          | -                      | -          | 395                                | 789                          | 789                      |
| Payable Lead  | kt                           | -                      | -          | 44.4                               | 88.8                         | 88.8                     |
| Payable Silver  | koz                          | -                      | -          | 375.0                              | 750.0                        | 750.0                    |
| Payable Lead Equiv  | kt                           | -                      | -          | 47.5                               | 95.1                         | 95.3                     |
| Mine Life   | yr                           | -                      | -          | 13.8                               | 12.8                         | 11.8                     |
| Capex   | A\$m                         | 0.0                    | -56.8      | -56.9                              | -57.2                        | -7.3                     |
| Assumed Mining Inventory  | Mt                           | 16.8                   | 16.8       | 16.5                               | 15.3                         | 14.1                     |
| Assumed Inventory - Pb grade  | %                            | 8.2%                   | 8.2%       | 8.2%                               | 8.2%                         | 8.2%                     |
| Assumed Inventory - Ag grade  | g/t                          | 22                     | 22         | 22                                 | 22                           | 22                       |
| <b>Costs</b>  |                              |                        |            |                                    |                              |                          |
|   | Unit                         | 30 Jun 19              | 30 Jun 20  | 30 Jun 21                          | 30 Jun 22                    | 30 Jun 23                |
| Cost per milled tonne   | \$A/t Pb Eq                  | -                      | -          | 125.0                              | 125.0                        | 125.0                    |
| EBITDA / tonne milled ore   | \$A/t Pb Eq                  | -                      | -          | 69.3                               | 70.4                         | 61.7                     |
| C1: Operating Cash Cost = (a)   | \$A/lb Pb Eq                 | -                      | -          | 0.72                               | 0.72                         | 0.71                     |
|   | \$US/lb Pb Eq                | -                      | -          | 0.55                               | 0.56                         | 0.56                     |
| C1 (Net of Credits)   | US\$/lb Pb                   | -                      | -          | 0.49                               | 0.50                         | 0.50                     |
| (a) + Royalty = (b)   | \$A/lb Pb Eq                 | -                      | -          | 0.81                               | 0.81                         | 0.81                     |
| C2: (a) + depreciation & amortisation = (c)   | \$A/lb Pb Eq                 | -                      | -          | 0.76                               | 0.75                         | 0.76                     |
| (a) + actual cash for development = (d)   | \$A/lb Pb Eq                 | -                      | -          | 1.03                               | 0.87                         | 0.87                     |
| C3: (c) + Royalty   | \$A/lb Pb Eq                 | -                      | -          | 0.86                               | 0.85                         | 0.85                     |
| (d) + Royalty   | \$A/lb Pb Eq                 | -                      | -          | 1.05                               | 0.93                         | 0.93                     |
| AISC - Payable  | \$A/lb Pb Eq                 | -                      | -          | 0.85                               | 0.83                         | 0.82                     |
|   | \$US/lb Pb Eq                | -                      | -          | 0.65                               | 0.65                         | 0.64                     |
| Total Cost - P&L - Payable  | \$A/lb Pb Eq                 | -                      | -          | 0.88                               | 0.85                         | 0.84                     |
| <b>Price Assumptions</b>  |                              |                        |            |                                    |                              |                          |
|   | Unit                         | 30 Jun 19              | 30 Jun 20  | 30 Jun 21                          | 30 Jun 22                    | 30 Jun 23                |
| AUD/USD   | A\$/US\$                     | 0.75                   | 0.76       | 0.77                               | 0.79                         | 0.78                     |
| Lead  | US\$/lb                      | 1.00                   | 1.01       | 0.99                               | 0.98                         | 0.93                     |
| Silver  | US\$/oz                      | 17.20                  | 17.97      | 18.51                              | 18.71                        | 18.32                    |
| <b>Sensitivity Analysis</b>   |                              |                        |            |                                    |                              |                          |
|   |                              | Valuation              |            |                                    | FY21 NPAT                    |                          |
| <b>Base Case</b>  |                              | 0.46                   |            |                                    | 20.6                         |                          |
| Spot Prices   | 0.59 (28.8%)                 |                        |            |                                    | 21.5 (4.2%)                  |                          |
| Spot USD/AUD 0.72, Lead US\$0.9/lb, Silver US\$16.0/oz.   |                              |                        |            |                                    |                              |                          |
| AUD/USD +/-10%  | 0.32 / 0.62 (-28.9% / 35.4%) |                        |            |                                    | 13.6 / 29.2 (-34.0% / 41.6%) |                          |
| Lead +/-10%   | 0.59 / 0.32 (29.5% / -29.5%) |                        |            |                                    | 27.8 / 13.4 (34.9% / -34.9%) |                          |
| Silver +/-10%   | 0.47 / 0.45 (2.3% / -2.3%)   |                        |            |                                    | 21.2 / 20.1 (2.6% / -2.6%)   |                          |
| Production +/-10%   | 0.61 / 0.30 (33.5% / -33.5%) |                        |            |                                    | 28.8 / 12.5 (39.4% / -39.4%) |                          |
| Operating Costs +/-10%  | 0.36 / 0.55 (-20.2% / 20.2%) |                        |            |                                    | 16.1 / 25.2 (-22.2% / 22.2%) |                          |
| <b>Unpaid Capital</b>   |                              |                        |            |                                    |                              |                          |
| <b>Year Expires</b>   |                              | No. (ml)               | \$m        | Average                            | % out                        |                          |
| 30-Jun-18   |                              | 0.0                    | 0.0        | 0.00                               | 0%                           |                          |
| 30-Jun-19   |                              | 0.0                    | 0.0        | 0.00                               | 0%                           |                          |
| 30-Jun-20   |                              | 0.0                    | 0.0        | 0.00                               | 0%                           |                          |
| 30-Jun-21   |                              | 16.8                   | 2.2        | 0.13                               | 5.0%                         |                          |
| 30-Jun-22   |                              | 18.0                   | 1.4        | 0.08                               | 5%                           |                          |
| <b>TOTAL</b>  |                              | <b>34.75</b>           | <b>3.6</b> | <b>0.10</b>                        | <b>10.3%</b>                 |                          |
| <b>Valuation</b>  |                              | <b>A\$m</b>            |            | <b>A\$/s</b>                       |                              |                          |
| 60% Abra (pre-tax NAV at disc. rate of 12%)   |                              | 143                    |            | 0.37                               |                              |                          |
| Other Assets/Exploration  |                              | 50                     |            | 0.13                               |                              |                          |
| Forwards  |                              | 0                      |            | 0.00                               |                              |                          |
| Corporate Overheads   |                              | -32                    |            | -0.08                              |                              |                          |
| Net Cash (Debt)   |                              | 61                     |            | 0.16                               |                              |                          |
| Tax (NPV future liability)  |                              | -45                    |            | -0.12                              |                              |                          |
| Options & Other Equity  |                              | 0                      |            | 0.00                               |                              |                          |
| <b>Total</b>  |                              | <b>177</b>             |            | <b>0.46</b>                        |                              |                          |
| Analyst: Paul How ard   |                              |                        |            |                                    |                              | Last Updated: 31/01/2019 |
| +61 8 9268 3045   |                              |                        |            |                                    |                              |                          |
| "tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained. |                              |                        |            |                                    |                              |                          |
| Sources: IRESS, Company Information, Hartleys Research  |                              |                        |            |                                    |                              |                          |

## THE DEAL

Essentially, Toho invests \$90M into AMPL. \$10M goes straight back out to G1A as a loan repayment, so there is \$80M sitting in the JV of which G1A owns 60%. G1A's share (60%) of the \$80M in AMPL is \$48M. Adding the \$10M it receives from AMPL, the deal generates \$58M for G1A and it gets to keep 60% of the project. In other words, it has sold 40% for \$58M. Toho comes away with 40%, worth \$32M (40% of the \$80M in the JV).

On a per share basis, the \$145M look through value (G1A sold 40% for \$58M implies \$145M for 100%) equates to 43cps valuation for the project (337M shares on issue or escrowed). Note our previous valuation for G1A was 44cps, so this gives us a level of comfort in the value of the deal. If G1A now has 60%, the project is worth 26cps on look through (and 37cps in our DCF model) to G1A but it also has an extra \$58M cash from the deal, which equals 16cps, plus \$50M worth of exploration value (13cps), less tax, corporate overheads etc. On look through, the valuation for G1A should be somewhere between 40c and 50c, which is a good sense check given our DCF valuation for G1A with 60% of the project is 46cps.

## VALUATION

Our sum of parts valuation for G1A is based on the new Toho deal transacting, discounted cashflows for the Abra Project as shown by the PFS, Company guidance and recent resource, reserve and mine plan update. Our model assumes the project can now be funded 100% through debt and commence production in early 2021. We model an updated nominal \$50M for exploration, which includes the copper-gold targets at depth beneath Abra but now excludes the Woodlands and Manganese Range/Quartzite Well assets to be spun into Metals Range.

**Fig. 1: Hartleys' Sum of Parts Valuation for G1A**

| Valuation                                   | A\$M       | A\$/s       |
|---|------------|-------------|
| 60% Abra (pre-tax NAV at disc. rate of 12%) | 143        | 0.37        |
| Other Assets/Exploration                    | 50         | 0.13        |
| Forwards                                    | 0          | 0.00        |
| Corporate Overheads                         | -32        | -0.08       |
| Net Cash (Debt)                             | 61         | 0.16        |
| Tax (NPV future liability)                  | -45        | -0.12       |
| Options & Other Equity                      | 0          | 0.00        |
| <b>Total</b>                                | <b>177</b> | <b>0.46</b> |

Source: Hartleys' Estimates

## PRICE TARGET

We assume a new mine inventory of ~16.4Mt @ 8.2% Pb and 22g/t Ag from a 1.2Mtpa underground operation, using \$125/t opex and pre-production capital of A\$180M. We model production of ~90Ktpa PbEq over a 13-year mine life from a 1.2Mtpa plant at a conservative LOM Pb price of US\$0.90/lb. Lead recoveries have been modelled at 95% with 95% payabilities.

Our fully diluted price target is derived from a blended scenario comprised of a discounted cashflow analysis of a Pb-Ag operation at Abra, a base case at consensus and spot pricing, potential reduction in capital costs in the upcoming Optimised PFS, a scenario where G1A does not develop the project (exploration value), a scenario where the project is acquired at a premium by a major and a net cash backing case.

Our valuation is 46c

**Fig. 2: Hartleys G1A Price Target**

| Price Target Methodology                                  | Weighting | Spot          | 12 Month |
|---|-----------|---------------|----------|
| Abra NPV @ 12% - Base Case, assuming equity dilution      | 40%       | \$0.46        | \$0.51   |
| NPV at spot commodity and fx prices                       | 15%       | \$0.59        | \$0.66   |
| Base Case & A\$30M reduction in LOM capital costs         | 25%       | \$0.49        | \$0.55   |
| Project acquired by a major                               | 10%       | \$0.37        | \$0.37   |
| Exploration value - no development                        | 5%        | \$0.19        | \$0.19   |
| Net cash backing  | 5%        | \$0.18        | \$0.18   |
| <b>Risk weighted composite</b>                            |           | <b>\$0.45</b> |          |
| <b>12 Months Price Target</b>                             |           | <b>\$0.50</b> |          |
| Shareprice - Last   |           | \$0.245       |          |
| <b>12 mth total return (% to 12mth target + dividend)</b> |           | <b>102%</b>   |          |

Our 12-month price target for G1A is 50cps

Source: Hartleys' Estimates

## RISKS

Key risks for Galena include final execution of the Toho deal, converting current resources to reserves, further development studies and commodity sentiment/demand.

**Fig. 3: Key assumptions and risks for valuation**

| Assumption              | Risk of not realising assumption | Risk to valuation if assumption is incorrect | Comment  |
|-------------------------|----------------------------------|--|--|
| ~90kt PbEq for ~14years | Moderate                         | High   | We assume G1A can mine in excess of the current reserve as per the latest 'mine model'. There is moderate risk surround this.                      |
| Metallurgy              | Low                              | Meaningful                                   | Recent met work suggests that 96% recoveries can be achieved, we model a lower 95% for Pb and 93% for Ag.  |
| Exploration Upside      | Moderate                         | Moderate                                     | We assume a high level of exploration upside for G1A. We have assumed a \$70m value on the exploration potential at Abra and on adjacent projects. |
| Lead Price              | Moderate                         | High   | Our lead price forecasts are in line with sell side consensus.   |
| Funding                 | Moderate                         | High   | We assume the Toho deal executes and only debt funding remains.  |
| Lead demand             | Moderate                         | High   | The emergence of the EV space puts lead (batteries) demand at risk.  |

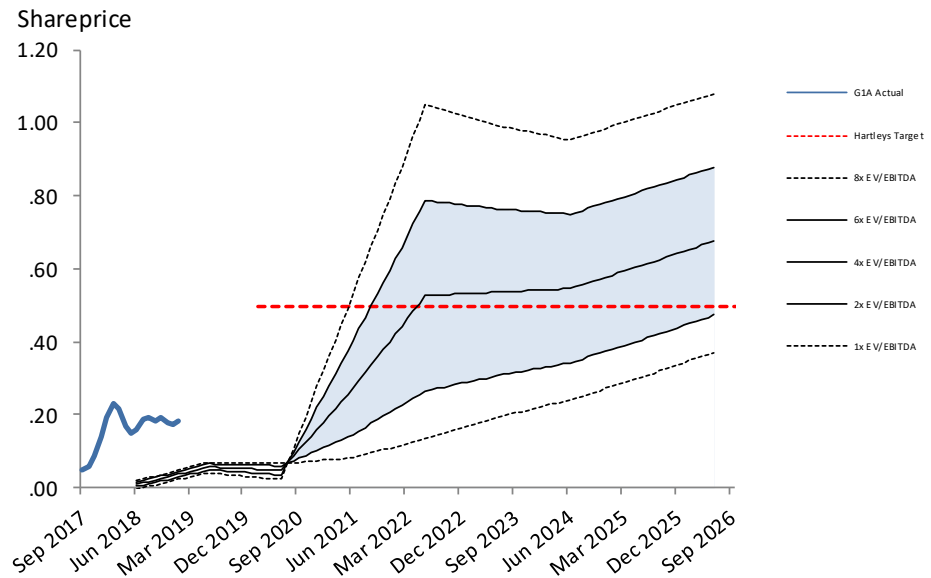
Conclusion

The assumptions we have made have a low to moderate risk of not being. We believe is the highest risk to our valuation of G1A is commodity prices and demand, and funding.

Source: Hartleys' Research

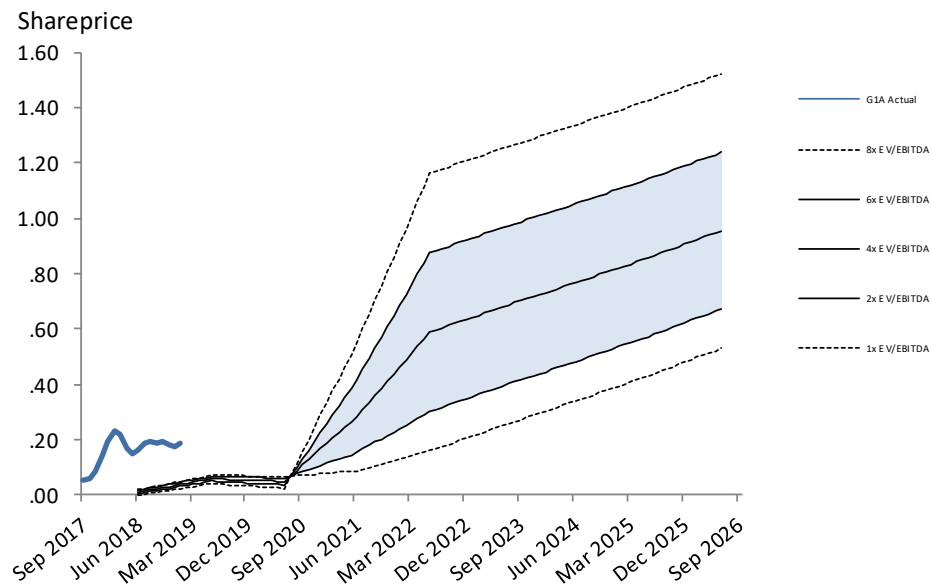
## EV/EBITDA BANDS

**Fig. 4:** Using Hartleys base case commodity forecasts



Source: Hartleys' Estimates, IRESS

**Fig. 5:** Using spot commodity prices



Source: Hartleys' Estimates, IRESS

# HARTLEYS CORPORATE DIRECTORY

## Research

|                     |                    |                 |
|---------------------|--------------------|-----------------|
| Trent Barnett       | Head of Research   | +61 8 9268 3052 |
| Mike Millikan       | Resources Analyst  | +61 8 9268 2805 |
| John Macdonald      | Resources Analyst  | +61 8 9268 3020 |
| Paul Howard         | Resources Analyst  | +61 8 9268 3045 |
| Aiden Bradley       | Research Analyst   | +61 8 9268 2876 |
| Oliver Stevens      | Research Analyst   | +61 8 9268 2879 |
| Michael Scantlebury | Junior Analyst     | +61 8 9268 2837 |
| Janine Bell         | Research Assistant | +61 8 9268 2831 |

## Corporate Finance

|                 |                              |                 |
|-----------------|------------------------------|-----------------|
| Dale Bryan      | Director & Head of Corp Fin. | +61 8 9268 2829 |
| Richard Simpson | Director                     | +61 8 9268 2824 |
| Ben Crossing    | Director                     | +61 8 9268 3047 |
| Ben Wale        | Director                     | +61 8 9268 3055 |
| Stephen Kite    | Director                     | +61 8 9268 3050 |
| Scott Weir      | Director                     | +61 8 9268 2821 |
| Scott Stephens  | Associate Director           | +61 8 9268 2819 |
| Rhys Simpson    | Associate Director           | +61 8 9268 2851 |

## Registered Office

### Level 6, 141 St Georges Tce Postal Address:

|                     |                      |
|---------------------|----------------------|
| Perth WA 6000       | GPO Box 2777         |
| Australia           | Perth WA 6001        |
| PH:+61 8 9268 2888  | FX: +61 8 9268 2800  |
| www.hartleys.com.au | info@hartleys.com.au |

*Note: personal email addresses of company employees are structured in the following manner: firstname.lastname@hartleys.com.au*

## Hartleys Recommendation Categories

|                       |  |
|-----------------------|--|
| 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. |

## Institutional Sales

|                    |                 |
|--------------------|-----------------|
| Carrick Ryan       | +61 8 9268 2864 |
| Justin Stewart     | +61 8 9268 3062 |
| Simon van den Berg | +61 8 9268 2867 |
| Digby Gilmour      | +61 8 9268 2814 |
| Jayne Walsh        | +61 8 9268 2828 |
| Veronika Tkacova   | +61 8 9268 3053 |

## Wealth Management

|                    |                 |
|--------------------|-----------------|
| Nicola Bond        | +61 8 9268 2840 |
| Bradley Booth      | +61 8 9268 2873 |
| Adrian Brant       | +61 8 9268 3065 |
| Nathan Bray        | +61 8 9268 2874 |
| Sven Burrell       | +61 8 9268 2847 |
| Simon Casey        | +61 8 9268 2875 |
| Tony Chien         | +61 8 9268 2850 |
| Tim Cottee         | +61 8 9268 3064 |
| David Cross        | +61 8 9268 2860 |
| Nicholas Draper    | +61 8 9268 2883 |
| John Featherby     | +61 8 9268 2811 |
| Ben Fleay          | +61 8 9268 2844 |
| James Gatti        | +61 8 9268 3025 |
| John Goodlad       | +61 8 9268 2890 |
| Andrew Gribble     | +61 8 9268 2842 |
| David Hainsworth   | +61 8 9268 3040 |
| Murray Jacob       | +61 8 9268 2892 |
| Gavin Lehmann      | +61 8 9268 2895 |
| Shane Lehmann      | +61 8 9268 2897 |
| Steven Loxley      | +61 8 9268 2857 |
| Andrew Macnaughtan | +61 8 9268 2898 |
| Scott Metcalf      | +61 8 9268 2807 |
| David Michael      | +61 8 9268 2835 |
| Jamie Moullin      | +61 8 9268 2856 |
| Chris Munro        | +61 8 9268 2858 |
| Michael Munro      | +61 8 9268 2820 |
| Ian Parker         | +61 8 9268 2810 |
| Matthew Parker     | +61 8 9268 2826 |
| Charlie Ransom     | +61 8 9268 2868 |
| David Smyth        | +61 8 9268 2839 |
| Greg Soudure       | +61 8 9268 2834 |
| Sonya Soudure      | +61 8 9268 2865 |
| Dirk Vanderstruyf  | +61 8 9268 2855 |
| Samuel Williams    | +61 8 9268 3041 |

## Disclaimer/Disclosure

The author of this publication, Hartleys Limited ABN 33 104 195 057 ("Hartleys"), its Directors and their Associates from time to time may hold shares in the security/securities mentioned in this Research document and therefore may benefit from any increase in the price of those securities. Hartleys and its Advisers may earn brokerage, fees, commissions, other benefits or advantages as a result of a transaction arising from any advice mentioned in publications to clients.

Hartleys has assisted in the completion of capital raisings for Galena Mining Limited ("Galena") in the last 12 months for which it has earned fees. Hartleys has provided corporate advice within the past 12 months and continues to provide corporate advice to Galena, for which it has earned fees and continues to earn fees.

Any financial product advice contained in this document is unsolicited general information only. Do not act on this advice without first consulting your investment adviser to determine whether the advice is appropriate for your investment objectives, financial situation and particular needs. Hartleys believes that any information or advice (including any financial product advice) contained in this document is accurate when issued. Hartleys however, does not warrant its accuracy or reliability. Hartleys, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law.