

10 May 2018

IRONBARK ZINC LTD (IBG)

Now or never

Ironbark Zinc Limited is planning to transport equipment and fuel to site in mid-August this year to its very large, Citronen zinc project in Greenland. Site activities will include a portal and decline drive towards the "Beach Zone" ore body. The Company will require some permitting before ground works can begin. This permitting presents some risk in our opinion although IBG believes that they will be received in a timely manner. The portal location was chosen due to its proximity to high grade ore but also its geotechnical qualities (outcropping solid rock). MiningPlus has assisted in the completion of a portal and decline design.

Site access

From time to time, some potential investors we have spoken to have thought that construction logistics to site, and product shipments from site, will be problematic. However, all the study work has assumed a three month shipping window in costs and cashflow. IBG will demonstrate access with a contracted ship expected to arrive in Citronen in mid-August.

China Nonferrous (NFC) study work deal put on ice

The Company has noted differences between the Western DFS and the changes that NFC wants to include. IBG says that a solution to the variations may not be found, and hence IBG is also pursuing non-China funding alternatives. Our valuation has always assumed traditional equity dilution and bank finance, and not relied on the NFC deal. Remember, a non-NFC deal would mean that 30% of the production is available for new offtake partners.

Leverage to the zinc price remains

We have seen credible forecasts for zinc to peak near US\$1.80/lb. While forecasters do not anticipate zinc could remain at such levels for long, we estimate that IBG could generate A\$500-600m EBITDA pa if zinc held that level in the early years of production. At such prices, capital payback would be <2 years. Hence, even a relatively brief extreme zinc spike is material.

Retain Speculative Buy

We retain our Speculative Buy recommendation. IBG offers significant leverage to rising zinc prices, although the share price momentum and level (4.4cps, ~\$22m EV) suggest the market is extremely sceptical that there will ever be a mine at Citronen.

Glencore, Nyrstar and NFC have all be involved in the project for many years, which has probably created a circular reference for project scepticism amongst minority equity investors. The Company needs a circuit breaker to demonstrate the development will occur. The status quo may have suited the industry to date (Citronen would be a globally significant project at 160-220ktpa zinc), but at some point, the very low market cap will mean the "prisoner dilemma" will kick in and presumably someone will blink and look to acquire IBG.

Current zinc prices are now high enough, in our view, for the equity market to fund the project. Our price target implies ~A\$180m mkt cap (~A\$1b EV fully funded). Zinc price volatility is a substantial risk.

Share Price	\$0.044
Valuation	\$0.25
Price Target (12 month)	\$0.29

Brief Business Description:

Very large zinc development project in Greenland

Hartleys Brief Investment Conclusion

Deposit is large and implies long mine life. Economic on spot prices and consensus estimates, very profitable at industry (the upper end of sell-side consensus) forecasted prices.

Chairman & MD

Peter Bennetto (Non Executive Chairman)
Jonathan Downes (Managing Director)

Major Shareholders

Nyrstar Int	15.3%
Toronga	7.8%
Glencore	6.9%

Company Address

Level 1, 350 Hay St
Subiaco, WA, 6008

Issued Capital	638.2m
- fully diluted	638.2m

Market Cap	A\$28.1m
- fully diluted	A\$28.1m

Cash (30 Mar 18a)	A\$6.0m
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Debt (30 Mar 18a)	A\$0.0m
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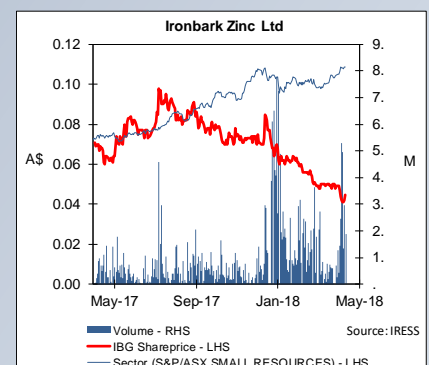
EV	A\$22.1m
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EV/Resource Zn	A\$0.0019/lb
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EV/Reserve Zn	-
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Prelim. (A\$m)	FY19e	FY20e	FY21e
Prod (kt Zn eq)	0.0	0.0	83.8
Op Cash Flw	-12.0	-22.3	70.7
Norm NPAT	-22.4	-52.3	47.6
CF/Share (cps)	-0.7	-1.3	1.2
EPS (cps)	-0.9	-1.7	1.5
P/E	-6.3	-3.5	3.8

	Zn	Pb
Resources (Billion lb)	11.7	1.3
Reserves (Billion lb)	0.0	0.0



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Hartleys has completed a capital raising in the past 12 months for Ironbark Zinc Limited ("Ironbark"), for which it has earned fees. Hartleys has provided corporate advice within the past 12 months and continues to provide corporate advice to Ironbark, for which it has earned fees and continues to earn fees. See back page for details.

Ironbark Zinc Ltd IBG		Share Price \$0.044				10 May 2018 Speculative Buy			
Key Market Information									
Share Price		\$0.044							
Market Capitalisation - ordinary		A\$28m							
Net Debt (cash)		-\$6m							
Market Capitalisation - fully diluted		A\$28m							
EV		A\$22m							
Issued Capital		638.2m							
Options		0.0							
Issued Capital (diluted for options)		638.2m							
Issued Capital (diluted inc. options and new capital)		2448.5m							
12month price target		\$0.29							
P&L									
	Unit	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22				
Net Revenue	A\$m	0.0	0.0	285.9	655.1				
Total Costs	A\$m	-2.6	-2.7	-159.5	-336.5				
EBITDA	A\$m	-2.6	-2.7	126.4	318.6				
- margin				44%	49%				
Depreciation/Amort	A\$m	-10.4	-29.9	-57.9	-71.9				
EBIT	A\$m	-13.0	-32.7	68.4	246.7				
Net Interest	A\$m	-9.4	-19.6	-20.8	-20.8				
Pre-Tax Profit	A\$m	-22.4	-52.3	47.6	225.9				
Tax Expense	A\$m	0.0	0.0	0.0	-76.9				
Normalised NPAT	A\$m	-22.4	-52.3	47.6	148.9				
Abnormal Items	A\$m	0.0	0.0	0.0	0.0				
Reported Profit	A\$m	-22.4	-52.3	47.6	148.9				
Minority	A\$m	0.0	0.0	0.0	0.0				
Profit Attrib	A\$m	-22.4	-52.3	47.6	148.9				
Balance Sheet									
	Unit	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22				
Cash	A\$m	619.0	268.6	94.8	266.2				
Other Current Assets	A\$m	0.2	0.2	35.4	80.9				
Total Current Assets	A\$m	619.1	268.7	130.2	347.1				
Property, Plant & Equip.	A\$m	52.3	350.1	536.2	468.3				
Exploration	A\$m	96.8	97.2	97.6	98.0				
Investments/other	A\$m	1.2	1.2	1.2	1.2				
Tot Non-Curr. Assets	A\$m	150.3	448.5	635.0	567.5				
Total Assets	A\$m	769.5	717.2	765.2	914.6				
Short Term Borrowings	A\$m	-	-	-	-				
Other	A\$m	0.1	0.1	0.5	1.0				
Total Curr. Liabilities	A\$m	0.1	0.1	0.5	1.0				
Long Term Borrowings	A\$m	360.7	360.7	360.7	360.7				
Other	A\$m	-	-	-	-				
Total Non-Curr. Liabil.	A\$m	360.7	360.7	360.7	360.7				
Total Liabilities	A\$m	360.8	360.8	361.2	361.7				
Net Assets	A\$m	408.7	356.4	404.1	553.0				
Net Debt	A\$m	-258.3	92.1	265.9	94.5				
Cashflow									
	Unit	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22				
Operating Cashflow	A\$m	-2.6	-2.7	91.5	273.5				
Income Tax Paid	A\$m	0.0	0.0	0.0	-76.9				
Interest & Other	A\$m	-9.4	-19.6	-20.8	-20.8				
Operating Activities	A\$m	-12.0	-22.3	70.7	175.8				
Property, Plant & Equip.	A\$m	-82.2	-327.7	-244.1	-4.0				
Exploration and Devel.	A\$m	-0.4	-0.4	-0.4	-0.4				
Other	A\$m	0.0	0.0	0.0	0.0				
Investment Activities	A\$m	-82.6	-328.1	-244.5	-4.4				
Borrowings	A\$m	360.7	0.0	0.0	0.0				
Equity or "tbc capital"	A\$m	360.7	0.0	0.0	0.0				
Dividends Paid	A\$m	0.0	0.0	0.0	0.0				
Financing Activities	A\$m	721.4	0.0	0.0	0.0				
Net Cashflow	A\$m	626.7	-350.4	-173.8	171.4				
Shares									
	Unit	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22				
Ordinary Shares - End	m	4125.6	4125.6	4125.6	4125.6				
Ordinary Shares - W'ted	m	3220.4	4125.6	4125.6	4125.6				
Diluted Shares - W'ted	m	3220.4	4125.6	4125.6	4125.6				
Ratio Analysis									
	Unit	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22				
Cashflow Per Share	A\$ cps	-0.4	-0.5	1.7	4.3				
Cashflow Multiple	x	-11.8	-8.1	2.6	1.0				
Earnings Per Share	A\$ cps	-0.7	-1.3	1.2	3.6				
Price to Earnings Ratio	x	-6.3	-3.5	3.8	1.2				
Dividends Per Share	AUD	-	-	-	-				
Dividend Yield	%	0.0%	0.0%	0.0%	0.0%				
Net Debt / Net Debt + Equity%		-172%	21%	40%	15%				
Interest Cover	X	na	na	3.3	11.9				
Return on Equity	%	na	na	12%	27%				
Directors									
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Jonathan Downes (Managing Director)					Subiaco, WA, 6008				
David Kelly (Non Exec, Glencore representative)					Ph +61 8 6461 6350				
Kelly Strong (Non Exec, Nyrstar representative)					Fax +61 8 6210 1872				
Gary Comb (Non Exec.)					www.ironbarkgold.com.au				
Top Shareholders									
		Ordinary	%						
		m sh.							
Nyrstar Int		97.7	15.3%						
Toronga		50.0	7.8%						
Glencore		44.1	6.9%						
Reserves & Resources									
		Mt	Zn %	Pb %					
Citronen - High Grade	M+I	5% cut	22.6	6.7%	0.5%				
Citronen - High Grade	Inf	5% cut	7.3	6.2%	0.5%				
Citronen - High Grade	Total	5% cut	29.9	6.6%	0.5%				
Citronen - High Grade	Reserve	5% cut	none						
Citronen - Global	M+I	2% cut	94.3	4.1%	0.4%				
Citronen - Global	Inf	2% cut	37.7	3.8%	0.4%				
Citronen - Global	Total	2% cut	132.0	4.0%	0.4%				
Citronen - Global	Reserve	2% cut	none						
Production Summary									
	Unit	Jun 19	Jun 20	Jun 21	Jun 22				
Unbeneficiated Mill Throughput	Mt	0.00	0.00	1.64	3.28				
Processed Mill Throughput	Mt	0.00	0.00	1.10	2.20				
Mined grade Zn	%	0.0%	0.0%	6.4%	7.4%				
Produced Zn	kt	0.0	0.0	93.9	219.1				
Payable Zn	kt	0.0	0.0	79.8	186.3				
Payable Zn Equiv	kt	0.0	0.0	83.8	194.3				
M&I Resource Mid Grade Conversion	%	89.3%	203.4%	215.4%	236.9%				
Mine Life	yr			13.75	12.75				
Assumed Mining Inventory	Mt	46.0	46.0	45.1	41.9				
Assumed Mining Inventory - Zn grade	%	5.2%	5.2%	5.2%	5.0%				
Assumed Mining Inventory - Pb grade	%	0.5%	0.5%	0.5%	0.5%				
Capex		82.2	327.7	244.1	4.0				
Costs									
	Unit	Jun 19	Jun 20	Jun 21	Jun 22				
Cost per milled tonne	\$/t			87.3	92.3				
EBITDA / tonne milled ore	\$/t			77.0	97.0				
Total cost per milled tonne				97.2	102.5				
Total Cash Costs (as per P&L)	\$/lb Zn eq			0.86	0.79				
C1: Operating Cash Cost = (a)	\$/lb Zn eq			0.78	0.71				
(a) + Royalty = (b)	\$/lb Zn eq			0.85	0.78				
C2: (a) + depreciation & amortisation = (c)	\$/lb Zn eq			1.09	0.88				
(a) + actual cash for development = (d)	\$/lb Zn eq			2.10	0.72				
AISC: (c) + Royalty	\$/lb Zn eq			1.16	0.95				
(d) + Royalty	\$/lb Zn eq			2.17	0.79				
AISC: (c) + Royalty	\$/lb Zn eq			0.90	0.74				
Price Assumptions									
	Unit	Jun 19	Jun 20	Jun 21	Jun 22				
AUDUSD	US\$/A\$	0.76	0.76	0.77	0.78				
Zinc	US\$/lb	1.40	1.27	1.21	1.18				
Lead	US\$/lb	1.06	1.02	0.99	0.99				
Hedging									
	Unit	Jun 19	Jun 20	Jun 21					
none									
Sensitivity Analysis									
		Valuation	FY21 NPAT						
Base Case		0.25	47.6						
Spot Prices		0.57 (128.6%)	81.3 (70.6%)						
Spot USD/AUD 0.75, Zinc \$1.39/lb, Lead \$1.04/lb.									
AUDUSD +/-10%		0.23 / 0.27 (-6.8% / 7.8%)	42.0 / 54.4 (-11.7% / 14.3%)						
Zinc +/-10%		0.36 / 0.11 (43.9% / -56.1%)	69.4 / 25.2 (45.8% / -47.1%)						
Lead +/-10%		0.25 / 0.24 (2.3% / -2.4%)	48.8 / 46.4 (2.5% / -2.5%)						
Production +/-10%		0.37 / 0.09 (47.5% / -62.7%)	70.7 / 23.1 (48.5% / -51.5%)						
Operating Costs +/-10%		0.15 / 0.33 (-40.0% / 33.6%)	33.3 / 62.0 (-30.2% / 30.2%)						
Unpaid Capital (excluding convertible notes which are assumed to be never used)									
Year Expires		No. (m)	\$m	Avg price	% ord				
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		0.0	0.0	0.00	0%				
30-Jun-22		0.0	0.0	0.00	0%				
TOTAL		0.0	0.0		0%				
Valuation									
		\$m	\$/shr						
100% Citronen (pre-tax NAV at disc. rate of 12%)		685	0.28						
Other Assets/Exploration		30	0.01						
Forwards		0	0.00						
Corporate Overheads		-13	-0.01						
Net Cash (Debt)		6	0.00						
Convertible notes (assumed converted to equity)		0	0.00						
Tax (NPV future liability)		-98	-0.04						
Options & Other Equity		0	0.00						
Total		609	0.25						
Analyst: Trent Barnett									
+61 8 9268 3052									
"tbc capital" could be equity or debt. Our valuation is risk-adjusted for how this may be obtained.									
Sources: IRESS, Company Information, Hartleys Research									
10 May 18									

PRICE TARGET

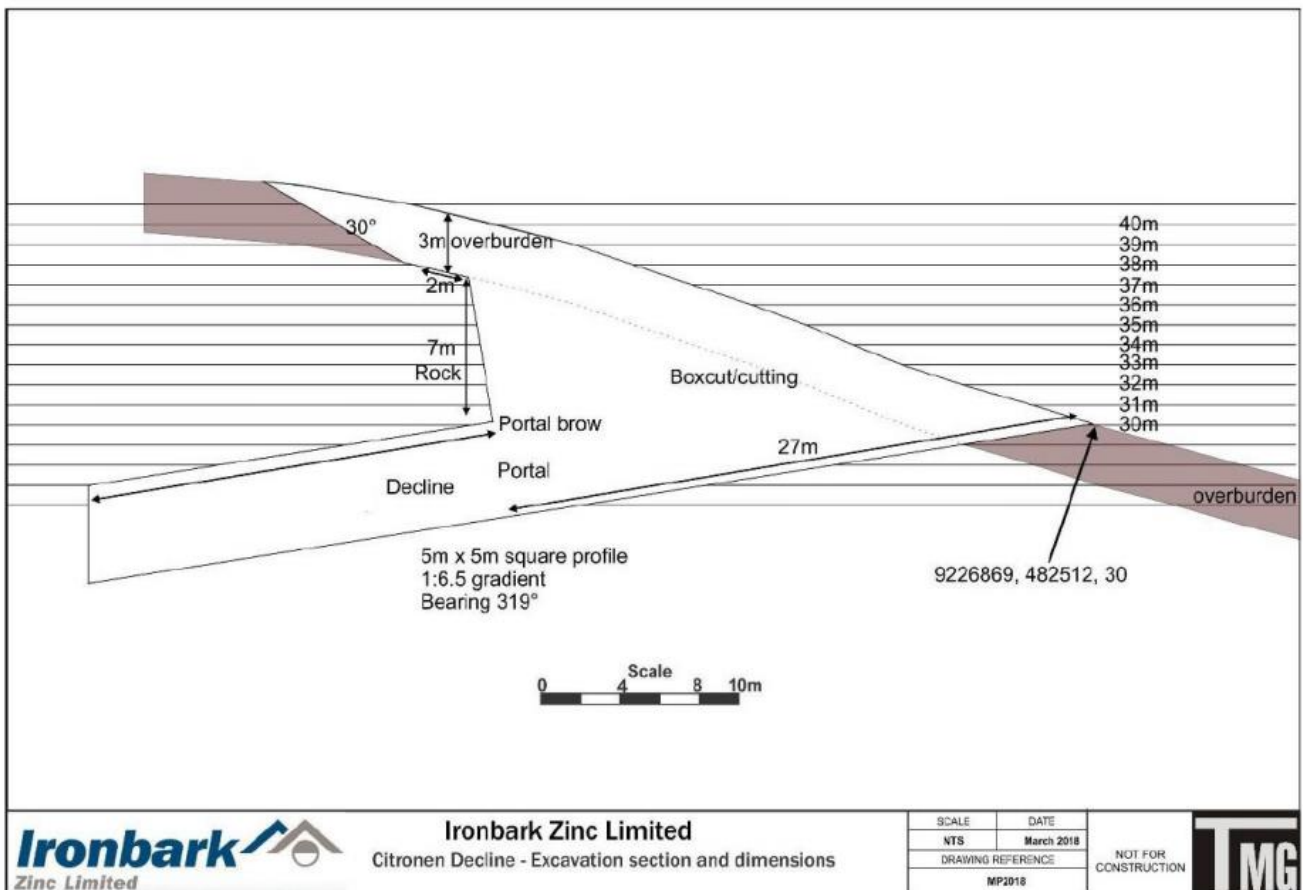
Our price target is a blended valuation based on a scenario of different of commodity price assumptions and capital raising prices. We have a price target of 29cps (from 33cps).

Fig. 1: Price Target Methodology

Price Target Methodology	Weighting	Spot	12 mth out
NPV base case, assuming significant equity dilution	40%	\$0.25	\$0.27
NPV at spot commodity and fx prices	15%	\$0.57	\$0.62
AUD zinc price calls (1.9Mt over 12yrs, avg strike @A\$0.94/lb)	5%	\$0.52	\$0.52
Net cash	35%	\$0.01	\$0.01
NPV using spot fx, but zinc prices at US\$1.30/lb, <u>no equity dilution</u>	5%	\$0.99	\$1.11
Risk weighted composite		\$0.26	
12 Months Price Target		\$0.29	
Shareprice - Last		\$0.044	
12 mth total return (% to 12mth target + dividend)		548%	

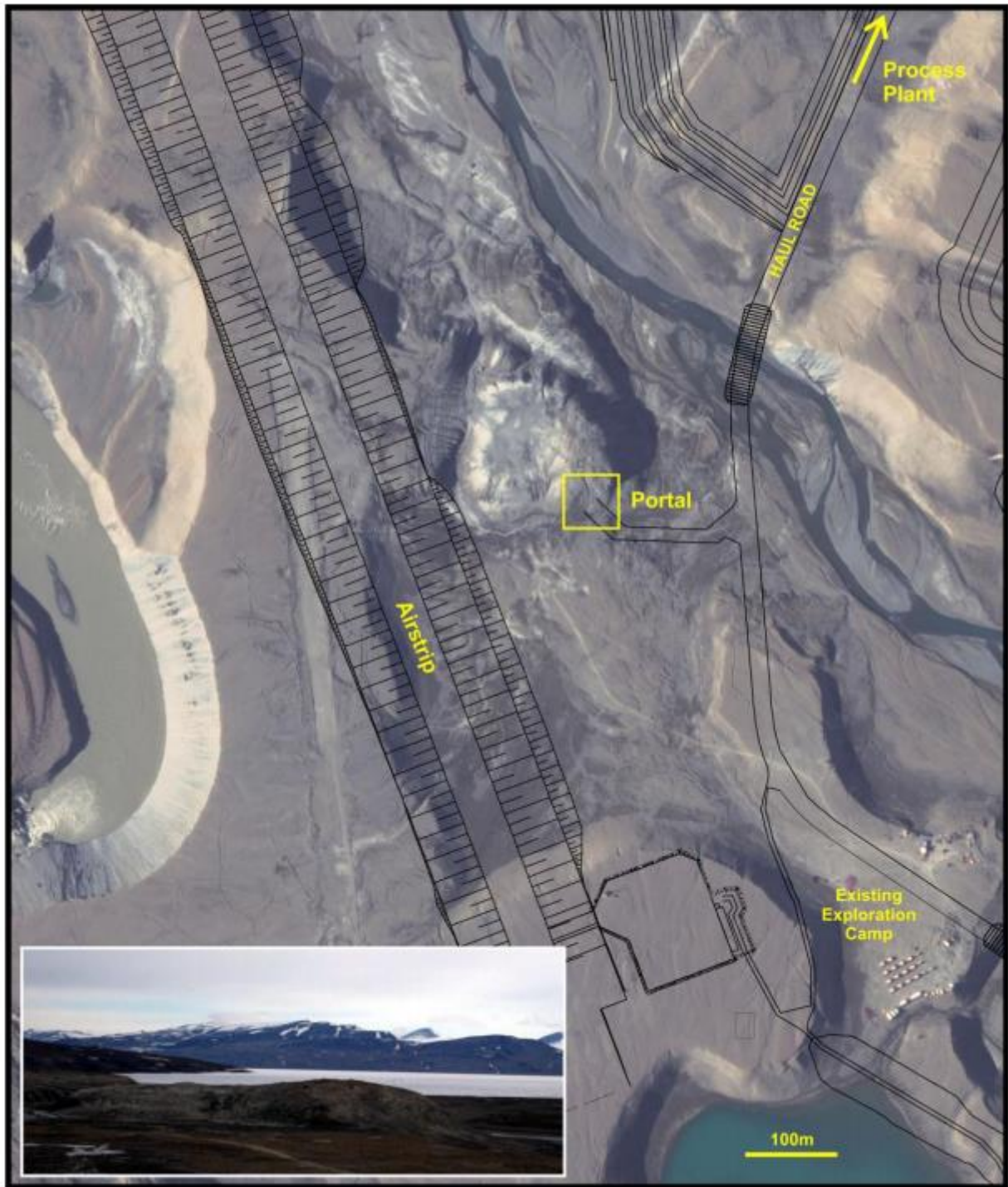
Source: Hartleys

Fig. 2: Portal and decline design cross section



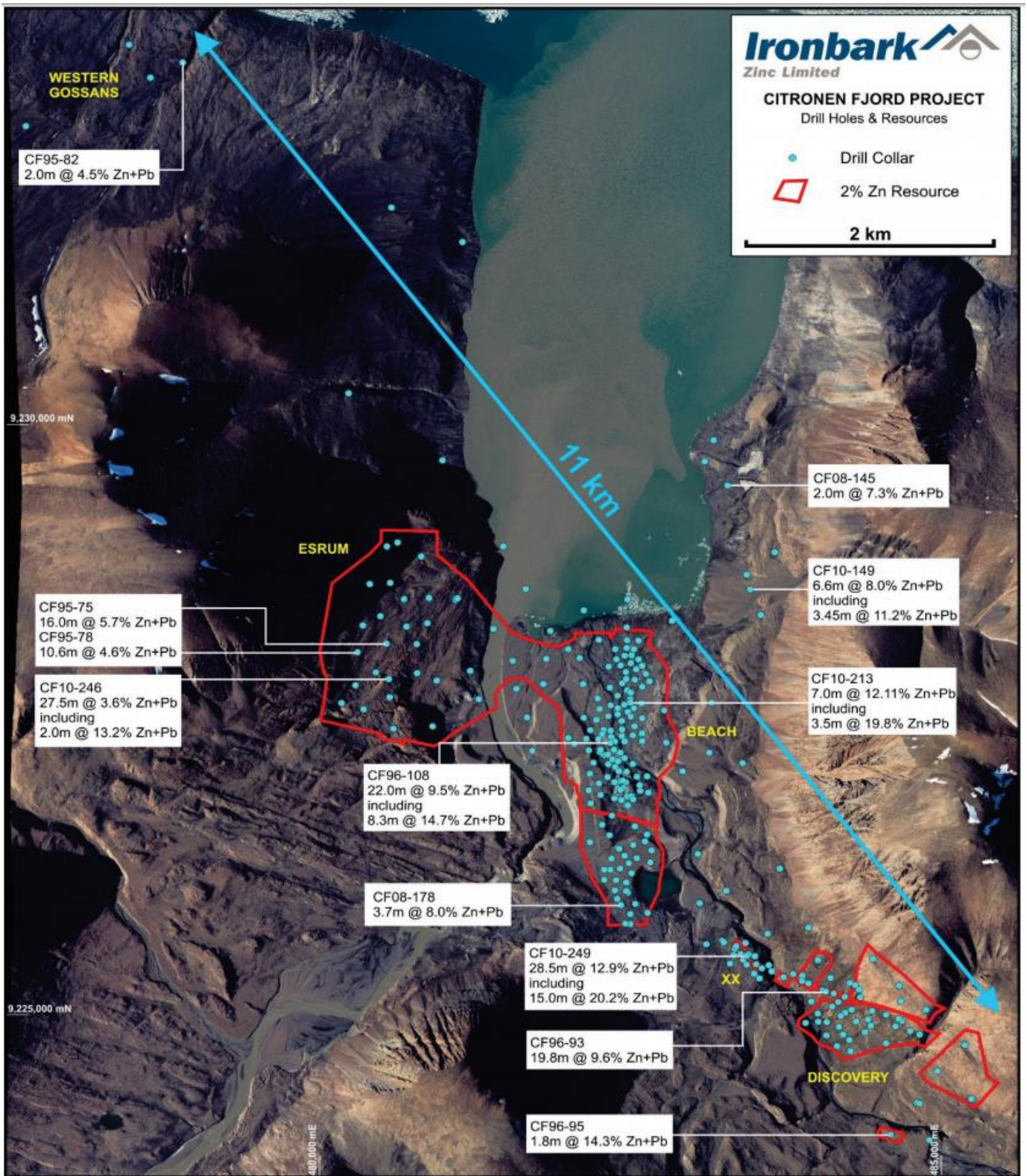
Source: IBG

Fig. 3: Portal location



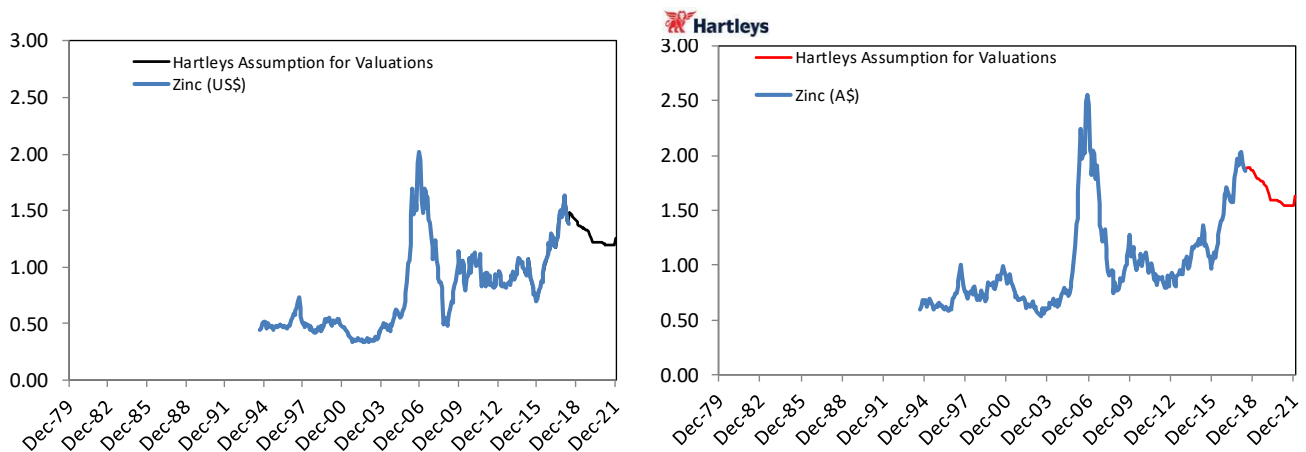
Source: IBG

Fig. 4: Portal location



Source: IBG

Fig. 5: Zinc Price assumptions



Source: Hartleys, IRESS

Fig. 6: Key assumptions and risks for valuation

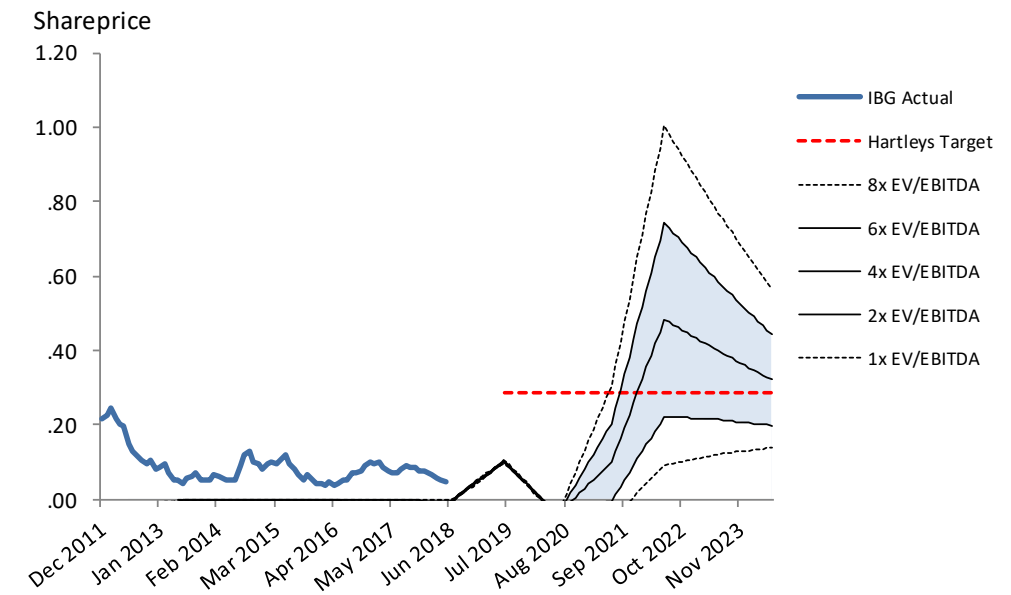
Assumption	Risk of not realising assumption	Downside risk to valuation if assumption is incorrect	Comment
Fourteen year mine life	Low	Upside	The current high grade resource implies a mine life of >15years.
Zinc price fall	Moderate	Substantial	Our zinc price assumptions imply prices fall over coming years.
Large proportion of capex is funded with debt	Moderate to high	Not meaningful	The long mine life should support debt funding
Equity can be raised at prices higher than current	Moderate to high	Substantial	We assume that if the project is developed, it will be because the economics (zinc price) are compelling, and the shareprice will better reflect the fundamental value of Citronen in a high zinc price environment
We don't assume NFC exercises its right to purchase 19.9% of the project.	Low	Upside	We assume the project equity is financed by IBG shareholders, and they do not receive an equity injection from any "farm-out"
Limited value for exploration and other projects	Moderate	Upside	The other assets may have exploration success

Conclusion **IBG still has funding risk, which reduces as zinc prices increase (in our view). Consequently, we view IBG as leveraged to strong zinc prices.**

Source: Hartleys

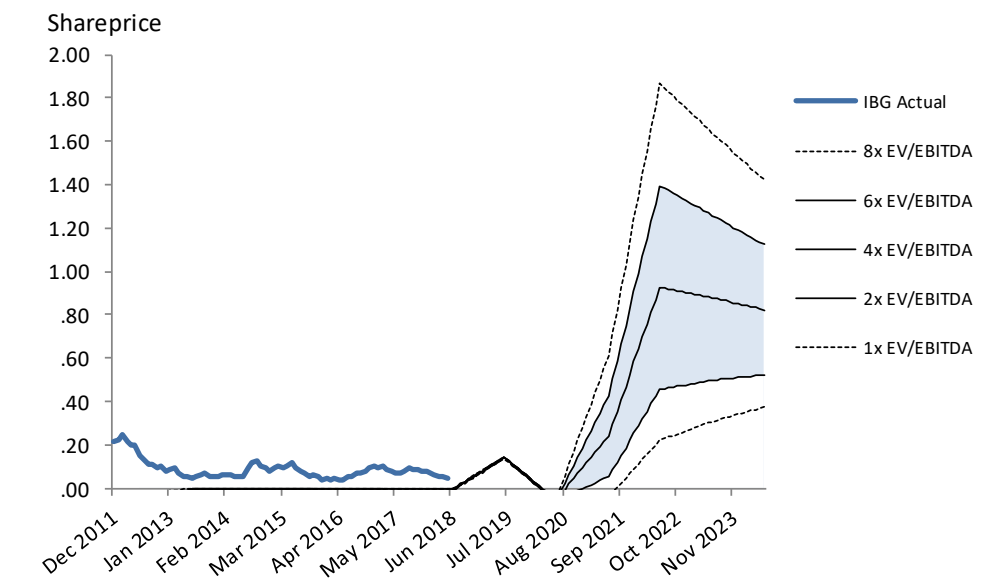
EV/EBITDA BANDS

Fig. 7: Using Hartleys base case commodity forecasts



Source: Hartleys Estimates, IRESS

Fig. 8: Using spot commodity prices



Source: Hartleys Estimates, IRESS

HARTLEYS CORPORATE DIRECTORY

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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.

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Hartleys has assisted in the completion of a capital raising for Ironbark Zinc Limited ("Ironbark") 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 Ironbark, for which it has earned fees and continues to earn fees.

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