

30 July 2018

## Company Announcements

Australian Securities Exchange Limited  
Level 40, Central Park,  
152-158 St Georges Terrace  
PERTH WA 6000

# QUARTERLY ACTIVITIES REPORT PERIOD ENDING 30 JUNE 2018

Ironbark Zinc Limited ("**Ironbark, the Company**") (ASX: IBG) hereby provides a report on its activities for the period ending 30 June 2018. During this reporting period the Company made further advances towards developing the world class Citronen zinc project (Citronen). While the zinc price retreated, the price nevertheless remains strong and with stronger long term zinc forecasts, a granted Mining Permit over one of the largest zinc deposits in the world and current Feasibility Study – Ironbark is uniquely well placed moving forward to achieve production. To date Ironbark has achieved all the steps towards meeting the aspirations of becoming a major zinc producer. The Company is now entering the financing stage toward developing the advanced and large scale Citronen zinc project with site activities due to start in August this year. During the quarter the following items were achieved:

- Cargo Ship Contracted
- Team mobilised to Commence Site Preparation
- Finance Discussion and Due Diligence Underway – Cutfield Freeman & Co
- Financier Site Visits Planned
- Germanium Update
- Captains Flat Update
- Zinc Market Update

## Shipping

Ironbark reported that it had secured the services of a cargo ship to sail to the wholly owned Citronen base metal project site in Greenland in August 2018. The vessel's journey will be an important demonstration of the proposed logistical solution to one of the world's largest undeveloped zinc projects and will validate the shipping route for commercial operations. The vessel that is contracted, the "Nunavik", is operated by Fednav, the world's largest arctic ship operator (Figure 1). The Nunavik has the capability to carry approximately 30,000 tonnes of cargo. The vessel is normally used to service the Nunavik Nickel Mine, which is owned and operated by Canadian Royalties Inc. located in Northern Canada where it transports nickel and copper concentrates from the mine to market. The Nunavik was the first cargo ship to complete the Northwest Passage unassisted. Ironbark plans to reach an agreement to lease vessels similar to the Nunavik annually, to assist in the shipping of zinc and lead concentrate from the Citronen mine and back freight in fuel and consumables to the Citronen mine. Ironbark is working to secure all the permits required to allow the vessel to enter Greenland waters.



**Figure 1: The Nunavik, a PC4 Class Ice Breaker Cargo Ship.**

## Site Works

Portal and decline engineering plans were drafted and submitted to allow Ironbark to commence site activities this year including establishing a portal but not the decline drive towards the first and highest grade underground ore source, the “Beach Zone”. The planned site works will commence towards portal establishment and box-cut, but not the actual decline at this stage, as well as servicing the equipment on site such as the bulldozers, Prinoth snow plough, and other general maintenance and preparation work.

Ironbark appointed MiningPlus, a highly experienced engineering planning house, to provide engineering and technical services for the Citronen Project. MiningPlus designed the initial open pit and underground mining schedule for Citronen. Figure 2 shows the infrastructure of the Citronen Project and the location of the portal; inset shows a photograph of the portal area looking north towards the fjord. The portal location has been chosen in an area of outcropping solid rock that is in the centre of the high grade “Beach Zone” orebody allowing the highest grade ore to be mined first.



**Figure 2: Portal Location at Citronen Fjord.**

## Financing Progress

The Citronen data room has been open to potential investors for several months now. There has been an encouraging level of interest in the project from a broad range of investors. Several site visits will be facilitated this year as part of the due diligence process for potential financiers. This is expected to include bankers, private equity groups and industrial groups. The site visit is a customary and critical requirement as part of the due diligence process. Cutfield Freeman & Co. are assisting Ironbark with the overall financing process and are operating as the first contact to manage the potential financing scenarios. Ironbark is delighted with the quality of the parties interested in the Citronen project. Ironbark is also hoping to have senior Greenland Government officials visit the site in August.

One of Ironbark's strategies is to minimise the capital costs of the project. The Company is in discussions with parties with regard to contract mining, lease hire and Build Own Operate (BOO)

opportunities. Specific key capital items that are potentially open to off balance sheet financing/ownership include the Power Plant, the Mining Fleet, the Processing Plant, the Ship Loader and Marshalling Yard, and the Fuel Farm. These could potentially reduce the capital costs by up to US\$150M and would form part of the financing. Some of these plant items may potentially be able to access European Credit Authorities (ECA) funding schemes. Successfully reducing the capital costs in this way would result in a substantially higher Internal Rate of Return for the project and enhance the overall financing planning.

Discussions are ongoing with China Nonferrous (NFC). We note that Chinese regulatory requirements and design changes have resulted in variations to the Western Feasibility Study. Some of these changes have resulted in delays and increased costs. Ironbark continues to work with NFC under the pre-existing Memorandum of Understanding however a resolution to these variations may not be achieved.

The targeted collective financing options will be evaluated to form the best possible outcome for shareholders. The financing is likely to include a blend of debt, equity and possibly even partnership or joint venture. All options will have specific pathways and timeframes to reach conclusion and Ironbark is pursuing these as fast as is possible. Milestones and updates will be provided to the market as they are achieved.

## **Germanium Update**

Ironbark conducted several rounds of assay investigation to follow up on the initial encouraging germanium assay results through three assay laboratories. Some of the results have returned further encouraging results, however other tests have returned substantially lower grade results. Numerous follow up and confirmation tests have given mixed results but are indicating that initial higher grade assay results are not being repeated. Making this more complex is that the positive results showed excellent correlation with other elements known to be associated with germanium as well as upgrading, in line with expectations, by Dense Media Separation, while the negative results showed no correlation. Ironbark has commenced mineralogical analysis of the drill core to determine the presence of germanium using a scanning electron microscope (SEM). If germanium is present, the precise mineral composition will then be determined. If this is achieved, then an assay technique could be designed to better detect it. Results from the SEM analysis are expected shortly.

## **Captains Flat**

The HeliSAM electromagnetic survey was due to commence at the Captains Flat Project in early July. The survey has been delayed while establishing land access to some remote areas. These issues have now been resolved and the operators will mobilise to site as soon as possible however Ironbark needs to respect the lambing season. The survey represents the most modern and thorough geophysical exploration of the Jerangle Prospect, the highest priority target within the Captains Flat Project, where Ironbark and Joint Venture Partner NSW Base Metals (a subsidiary of Glencore) have enjoyed historic exploration success. Jerangle has been identified as a large mineralised system which has had very limited exploration but has yielded encouraging historic drill results, refer ASX announcement dated 9 May 2018:

**JR03:** 1.1m @ 4.3% Cu, 7 g/t Ag from 113m and 2.3m @ 5.2% Cu, 19 g/t Ag from 228m and 1.6m 3.7% Zn from 245m

**JR04:** 1m @ 2.8% Cu, 9 g/t Ag from 218m and 29.4m @ 0.5% Cu, 2.2% Zn, 8 g/t Ag from 350m.

### Zinc Market Update - Price Pullback but Remains Strong

The zinc price has continued to hold at a strong price, however there was a pullback of approximately 25% in line with general commodity prices and market volatility with concerns over Global political events. The price appears to have stabilised and global zinc stockpiles hold at relatively low levels meaning tight supply (Figures 3 & 4). At the time of writing the zinc price was ~US\$1.20/lb or US\$2,644/t.



Figure 3: LME Zinc Stockpiles.

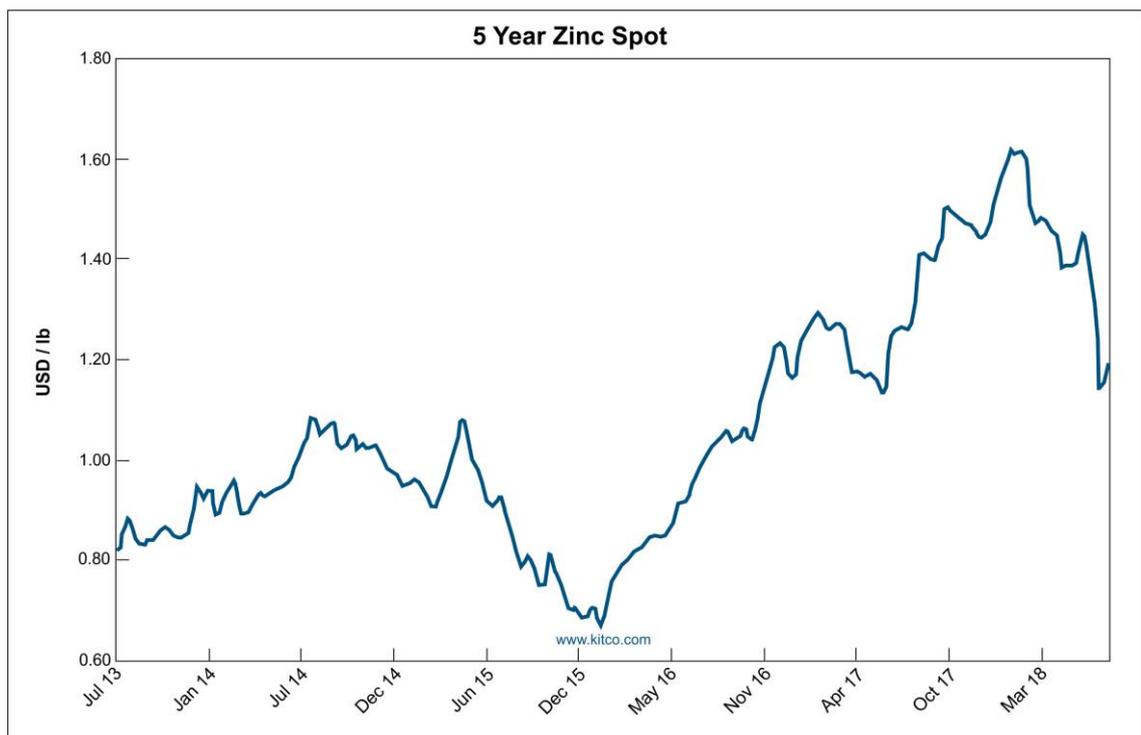


Figure 4: LME Zinc Prices.

Aside from the depletion of several of the worlds larger zinc mines with little in the way of new discoveries and the ever growing global zinc demand there are other market dynamics at play. China has historically produced almost half of the worlds zinc and generally consumes approximately this amount. Since 2014, the Chinese authorities have taken a strict stance regarding the protection of the environment. Several Chinese miners, particularly the smaller to medium swing producers, have historically had a substantial and negative impact on the environment. The new Chinese focus has resulted in the suspension of a large number of smaller operations. This has had a strong and likely lasting effect on the supply and demand fundamentals surrounding zinc production. Existing operations around the world have expanded where possible, in many cases with production growth considered to be near record levels in 2017 and forecast to be equally strong in 2018. Wood Mackenzie forecast that despite this, the global zinc stocks will remain at critically low levels and forecast zinc to rise as high as US\$4,000/t (over US\$1.80/lb) in the first quarter of 2019.

Citronen remains one of the largest undeveloped zinc projects in the world and offers strong leverage to the rising zinc price once in production.

### **Cash Position**

The Company holds a cash position at the end of the June 2018 quarter of approximately \$5.2M with no debt. This places Ironbark in a strong position to aggressively progress the financing and development activities.

**End.**

For further information please visit Ironbark's website [www.ironbark.gl](http://www.ironbark.gl) or contact us:

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## **About Ironbark**

Ironbark is listed on the Australian Securities Exchange and is seeking to become a base metal mining house.

Ironbark seeks to build shareholder value through exploration and development of its projects and also seeks to actively expand the project base controlled by Ironbark through acquisition. The management and board of Ironbark have extensive technical and corporate experience in the minerals sector.

The wholly owned Citronen base metal project currently hosts in excess of 13.1 Billion pounds of zinc (Zn) and lead (Pb). For full details refer to ASX announcement 25 November 2014 – Citronen Project Resource Update – JORC 2012 compliant resource. Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the resource estimates in this release continue to apply and have not materially changed.

The current JORC 2012 compliant resource for Citronen:

### **70.8 million tonnes at 5.7% Zn + Pb**

<b>Category</b>	<b>Mt</b>	<b>Zn%</b>	<b>Pb%</b>	<b>Zn+Pb%</b>
Measured	25.0	5.0	0.5	5.5
Indicated	26.5	5.5	0.5	6.0
Inferred	19.3	4.9	0.4	5.3

*Using Ordinary Kriging interpolation and reported at a 3.5% Zn cut-off*

Including a higher grade resource of:

### **29.9 million tonnes at 7.1% Zn + Pb**

<b>Category</b>	<b>Mt</b>	<b>Zn%</b>	<b>Pb%</b>	<b>Zn+Pb%</b>
Measured	8.9	6.6	0.6	7.2
Indicated	13.7	6.8	0.5	7.3
Inferred	7.3	6.2	0.5	6.6

*Using Ordinary Kriging interpolation and reported at a 5.0% Zn cut-off*

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***“Ironbark is an emerging leader amongst Australia’s mineral resource companies, dedicated to the development of its major base metal mining operation in Greenland – the world class Citronen Project, and the acquisition of quality base metals projects.”***

## **Disclosure Statements and Important Information**

### **Forward Looking Statements**

The following information is not intended to guide any investment decisions in Ironbark Zinc Limited. This material contains certain forecasts and forward-looking information, including possible or assumed future performance, costs, production levels or rates, reserves and resources, prices and valuations and industry growth and other trends. Such forecasts and information are not a guarantee of future performance and involve many risks and uncertainties, as well as other factors. Actual results and developments may differ materially from those implied or expressed by these statements and are dependent on a variety of factors. The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, based on the information contained in this and previous ASX announcements.

The Citronen Zinc Project is considered to be at an early development stage and will require further regulatory approvals and securing of finance and there is no certainty that these will occur. Nothing in this material should be construed as either an offer to seek a solicitation or as an offer to buy or sell Ironbark securities. Consideration of the technical and financial factors requires skilled analysis and understanding of their context.

Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimates in this release continue to apply and have not materially changed.

### **Competent Persons Statement**

The information included in this report that relates to Exploration Results & Mineral Resources is based on information compiled by Ms Laursen (B. ESc Hons (Geol), GradDip App. Fin., MSEG, MAIG), an employee of Ironbark Zinc Limited. Ms Laursen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Laursen consents to the inclusion in the report of the matters based on this information in the form and context in which it appears

### **Competent Persons Disclosure**

Ms Laursen is an employee of Ironbark Zinc Limited and currently holds securities in the company.



**Schedule of Tenements (as required by ASX Listing Rule 5.3.3)**

IRONBARK ZINC LIMITED CONSOLIDATED BASIS				
SCHEDULE OF INTERESTS IN MINING TENEMENTS				
Project	Mining Licence and tenements held	Location of tenements	Beneficial % interest at end of the quarter	Change in the quarter
Captains Flat (Joint Venture with Glencore)	EL6381	New South Wales	50%	
Fiery Creek	EL6925 EL8107	New South Wales	100% 0%	100% -100%
Citronen	ML2016/30 EL2007/31 EL2010/47	Greenland	100%	
Mestersvig	EL2011/28 EL2007/32 EL2016/22	Greenland	100%	
Washington Land	EL2007/33	Greenland	100%	