

28 October 2021

Company Announcements

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

QUARTERLY ACTIVITIES REPORT PERIOD ENDING 30 SEPTEMBER 2021

Ironbark Zinc Limited (“Ironbark”, “the Company” or “IBG”) (ASX: IBG) hereby provides a report on its activities for the quarter ending 30 September 2021.

Highlights

Citronen

- 2021 Bankable Feasibility Study Confirms Citronen as World Class Zinc Project
- Project Finance Application with US EXIM Bank Underway

Corporate

- Alexander Downer AC and Paul Cahill appointed to the Board
- \$1.61 million Cash at Bank as at 30 September 2021

Zinc Market

- Strong Zinc Price Rally in September quarter; Zinc added to USGS Critical Minerals List

Projects - Citronen

2021 Bankable Feasibility Study confirms Citronen as World Class Zinc Project

On 19 July 2021 Ironbark announced the results of the 2021 Bankable Feasibility Study (“**2021 BFS**”) for the Citronen Zinc-Lead Project (“**Citronen Project**”), with the highlights detailed below.

For full details of the 2021 BFS refer to the ASX announcement released on 19 July 2021.

Highlights

- Robust economics, with the 3.3Mtpa Citronen Project to deliver a post-tax free cash flow of US\$1.46 billion (Bn) at a Zn price of US\$1.30/lb (spot Zn is US\$1.58 at the time of writing)
 - Post-tax NPV_(8%) of US\$363 million (M); IRR 15.2%; CAPEX US\$654m

- Significant leverage to future zinc (Zn) price growth; 2.5 million tonnes (Mt) Zn metal produced life of mine (LOM) averaging ~130ktpa
- Competitive C1+sustaining capital costs per pound payable zinc
 - Year's 1 to 5 US\$ 0.68/lb; LOM US\$ 0.76/lb
- 50% increase in mine life to 20 years in a low-risk jurisdiction and emerging mining frontier
- Environmental, Social and Governance (ESG) approvals and management plans are well advanced
 - Process underway to ensure full compliance with Equator Principles and relevant IFC Performance Standards
- Binding offtake agreements remain in place with major Ironbark shareholders Trafigura (35% of LOM production) and Glencore 35% (10 years Zn, LOM Pb)
- IBG to now commence formal project financing process with United States EXIM Bank
- Significantly expanded Ore Reserve:
 - Mineral Resource of 85Mt @ 4.7% Zn and 0.5% Pb
 - Ore Reserve of 48.8Mt @ 4.8% Zn and 0.5% Pb
- Substantial exploration upside

The 2021 BFS represents the first ground-up evaluation of the Project in a decade and supersedes the feasibility study published on 12 September 2017.

The drivers for the preparation of this 2021 BFS were threefold:

1. To update the development plan;
2. To increase the level of confidence in the study parameters; and
3. To apply a more conservative risk filter to key economic assumptions to demonstrate the robustness of cash flows over the extended mine life.

In updating the BFS, IBG drew on the services of a range of leading consultants to provide a much broader assessment of the project opportunities and risks. Some key assumptions adopted in the 2017 study were adjusted to incorporate the results of additional study work and deliver a realistic assessment of the Project in line with the prevailing outlook.

The combination of these various changes materially impacted on project economics. These include both the impact of improved project design and more conservative economic and operational assumptions adopted as part of the financial analysis:

- Mine life extended to 20 years;
- Greatly improved, and more detailed, underground mine design has enhanced efficiency and lowered sustaining capital;
- Significant improvement on per tonne shipping costs;
- Evaluation uses a more conservative zinc price (US\$1.30 vs US\$1.38/lb);
- A higher 'real' discount rate has been applied (8.0% vs 5.5%); NPV_(8%) in 2017 had previously incorporated a 2.5% inflation rate to the zinc price;
- Full recognition of tax liabilities (in the 2017 Feasibility Study Announcement the 'post tax' NPV excluded US\$554m owed in withholding tax, impacting the 'post tax' NPV*); and
- Cost increases occurred across CAPEX, OPEX (mostly energy costs) and overall project contingency.

While the net effect of these changes is a material decrease in the headline post-tax NPV and IRR, on a like-for-like basis (using common assumptions) however, the 2021 BFS delivered an improved financial result (US\$48m higher post tax NPV_{8%}).

Most importantly, the approach enhances the level of confidence ahead of the next project development phase which is necessary to secure project funding. The adoption of more conservative CAPEX and OPEX assumptions together with an increased project contingency and numerous technical and Project advancements since 2017 represents a sound basis for engaging with potential financiers, including the US EXIM Bank.

Cautionary Statement:

The contents of this announcement reflect various technical and economic conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly over relatively short periods of time. Consequently, actual results may vary from those detailed in this announcement.

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

Project Finance Application with US EXIM Bank Underway

In August 2021 the Company advised that it had successfully lodged its project finance loan application with US EXIM (EXIM) Bank for cornerstone debt funding for the Citronen Project. Due diligence commenced during the quarter with the initial credit decision expected from EXIM during the December 2021 quarter. The final and binding credit decision will be subject to EXIM Board Approval and satisfaction of any conditions precedent to drawdown.

If a positive initial credit decision is made by EXIM Bank Ironbark will receive a “Preliminary Project Letter” that will include items such as what level of debt support EXIM Bank is willing to make, loan term, interest rate, amount of project equity required and other conditions typical of such a facility (including EXIM Board Approval).

Project equity will be one of the conditions precedent that Ironbark will need to satisfy to drawdown any approved EXIM debt facility. Whilst early conversations are currently underway with prospective equity investors, these are exploratory in nature only and it is the intention of the Board to wait for EXIM’s initial credit decision before moving these to a more formal basis as the equity ask, and returns, will be much clearer post PPL (if EXIM determine to issue one to Ironbark).

EXIM Bank, headquartered in Washington DC, is the official Export Credit Agency (ECA) of the United States Government and manages a total financing authority of US\$135 billion across a range of funding instruments typical of all ECAs. Its stated mission is to support American jobs by facilitating the export of U.S. goods and services. Ironbark has applied for a traditional project finance facility which, if successful, will enable Ironbark to procure relevant US content for the construction of the Citronen Project.

In addition to its core business, EXIM’s legislative charter was expanded in late 2019 to include the “Program on China and Transformational Exports”, also known as Section 402. This law charges EXIM with a goal of reserving not less than 20% of the agency’s total financing authority (i.e. US\$27bn out of a total of US\$135bn) for support made pursuant to the program.

The program has two aims:

1. To directly neutralize export subsidies for competing goods and services financed by official export credit, tied aid, or blended financing provided by China or by other covered countries; and
2. To advance the comparative leadership of the United States with respect to China, or support United States innovation, employment, and technological standards, through direct exports in ten transformational export categories.

Ironbark has set out a case for its prospective project loan to be considered Section 402 compliant, which if EXIM determines to be the case, will mean an expanded range of credit terms may be made available to Ironbark as part of its loan facility. For clarity, two separate approvals would be required for this to occur (being credit approval and approval from the team administering the Section 402 program).

Projects - Australia

Fiery Creek

Permitting work, while impacted by the NSW wide Covid-19 induced lockdown experienced for much of the quarter, continued to progress at IBGs Fiery Creek Cu-Au Project with the Right to Negotiate being granted by the Department of Regional NSW.

Further work is required however before a drilling campaign can begin, including:

- Access Agreement – requires an exploration plan and Review of Environmental Factors (REF) to be submitted to NSW National Parks & Wildlife Service. The flora and fauna fieldwork to inform the REF is currently scheduled to take place in December 2021.
- Form ESG4 approval by NSW Resource Regulator

Upon successful completion of these approval steps, Ironbark will obtain permission for its first ever drill campaign at Fiery Creek (EL 6925 was last drilled in the 1980s).

Corporate

Board Changes

In late September 2021 the Company announced the appointments of Mr. Alexander Downer AC and Mr. Paul Cahill as Non-Executive Directors of the Company, effective from 1 October 2021. As part of these Board changes, Mr Maciej Sciazko retired from the Board effective 1 October 2021.

Alexander Downer AC was Australia's longest ever serving Foreign Minister and his appointment reflects the geopolitical importance of the Citronen Project. Paul Cahill was Group Head of Business Development and Head of Strategic Relationships Management at Anglo American and is currently Senior Adviser - Mineral Resources Investment for Mitsubishi Corporation and Chairman of the Advisory Board of Bacchus Capital Advisers

For full details and biographies of the incoming directors please refer to the ASX announcement on 28 September 2021.

ASX Listing Rule 5.4.5 Disclosure

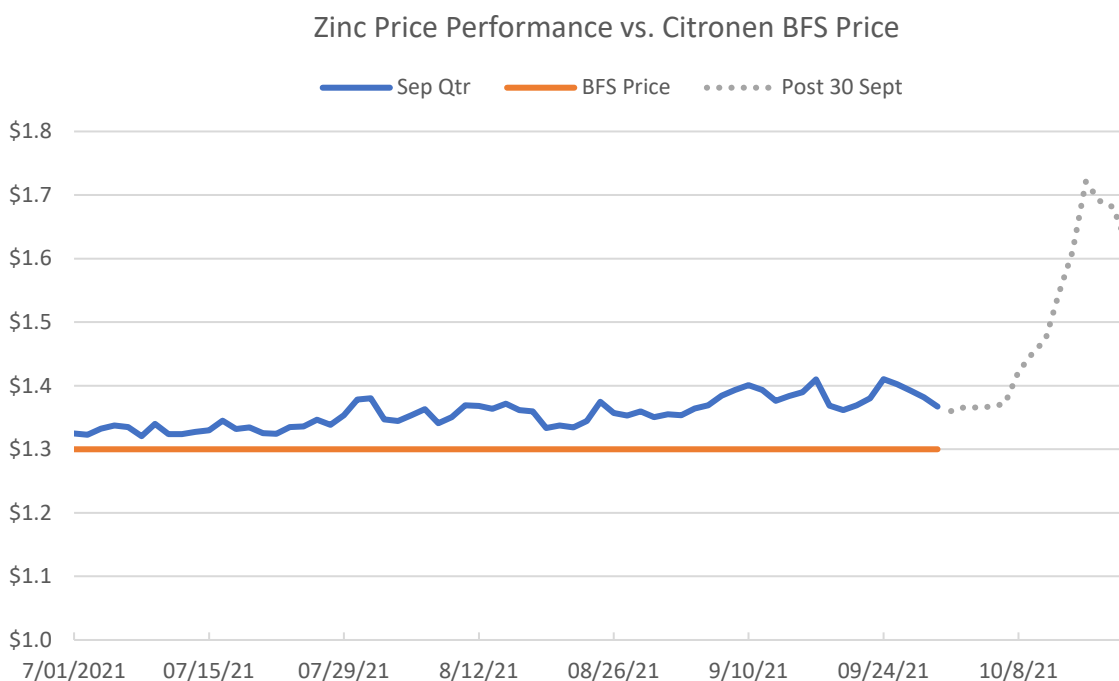
Payments to related parties during the quarter as outlined in Sections 6.1 and 6.2 of the Appendix 5B consisted of \$70,793 in directors' fees and fees to the Managing Director under his executive services agreement.

The Company’s cash balance, as at 30 September 2021, was **AUD \$1.61 million**. Project expenditure has been elevated during the recent quarters as the Company completed its Bankable Feasibility Study however ongoing overheads remain largely unchanged. While project spend related to the BFS has substantially reduced in the current quarter, Ironbark has incurred some additional costs related to its EXIM Bank loan application.

Zinc Market Update

September Quarter 2021: Zinc Price and Drivers

The price of Zinc rallied strongly in the three months to 30 September 2021, maintain a premium above the Citronen BFS price of US\$1.30/lb for the whole quarter, before rising further into the month of October:



Two main drivers, affecting both supply and demand, can explain the current price rally:

- Downstream smelters idling capacity in response to significantly elevated energy prices. As at 20 October 2021, production cuts of approximately 95kt of Zn metal had been announced by various smelters, predominantly in Europe.
- Ongoing sustained demand from post Covid spending by governments and the private sector – in terms of consumption and subsequent restocking - worldwide

Whilst energy prices are expected to moderate long term, it is the opinion of the Ironbark Board that this price spike is evidence of an underlying, and until now underappreciated, tightness in the Zinc market.

Potential Long-Term Trends in the Zinc Market

Substantially increased investment in all base metals, including Zinc, is required to meet the projected energy transition targets being proposed by various governments worldwide. Wood Mackenzie (COP 26 Briefing) estimates:

- New investment of US\$ 500 billion is required over the next twenty years across the base metal suite to achieve a 2.5°C temperature rise pathway (“Base Case”)
- To achieve a 1.5-2.0° temperature rise pathway, more than US\$ 2 trillion is required to be spent over the next 15 years to ensure a 2040 metal supply that is **five times larger than 2020**

These metals – largely Zinc, Copper, Nickel, Aluminium and Lead – will go into systems designed for renewables centric energy generation, transmission, storage and consumption. With specific regard to Zinc it is estimated that an additional 3.5Mt of primary metal supply will be required by 2040 (to achieve a 1.5° pathway) from currently uncommitted projects. **This is equivalent to the current annual production of the 13 largest Zinc mines in the world in 2021** (Wood Mackenzie Zinc Producer Rankings September 2021).

Addition of Zinc to USGS Critical Minerals List

Post 30 September, Zinc was one of only two metals (along with Nickel) that were added to the US Geological Survey’s Critical Minerals List (CML), citing:

“For Zinc, global mine and smelter production concentration has increased notably during the past few decades. This change has been driven mainly by increased production in China.”

The CML is a quantitative analysis of a range of perceived risk factors impacting future security of supply to the US, with Zinc ranking above higher profile battery metals such as Lithium and Graphite in its degree of criticality. Given Ironbark’s current US centric financing strategy, the formal recognition of the crucial role Zinc plays in US manufacturing (and the fact that it is a significant importer of Zinc metal) is potentially timely and this development will be watched closely by the market.

Further Inquiries

Contact and person who authorised the announcement:

Managing Director Michael Jardine on +61 424 615 047 or mjardine@ironbark.gl for any further inquiries.

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.

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.

JORC Resource

The current JORC 2012 compliant resource for Citronen (see ASX announcement dated 19 July 2021):

84.7 million tonnes at 4.72% Zn & 0.47% Pb

Category	Mt	Zn (%)	Pb (%)
Open pit @ 1.5% Zn cut-off			
Measured	11,767,520	2.9	0.5
Indicated	2,159,548	2.6	0.3
M&I	13,927,068	2.8	0.5
Inferred	3,303,573	2.9	0.4
Open pit total	17,230,641	2.8	0.4
Underground @ 3.5% Zn cut-off			
Measured	22,518,764	5.2	0.5
Indicated	26,208,555	5.5	0.5
M&I	48,727,319	5.4	0.5
Inferred	18,744,401	4.8	0.4
Underground total	67,471,720	5.2	0.5
TOTAL Mineral Resource			
Measured	34,286,284	4.36	0.51
Indicated	28,368,103	5.30	0.46
Inferred	22,047,974	4.55	0.42
Total	84,702,361	4.72	0.47

JORC Table 1 included in an announcement to the ASX released on 19th July 2021: “2021 Bankable Feasibility Study Confirms Citronen as World Class Zinc Project”. Ironbark confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

Ore Reserve

The current JORC 2012 compliant Ore Reserve for Citronen is summarised below:

Deposit	Category	Tonnes (Mt)	ZnEq grade (%)*	Zn grade (%)	Pb grade (%)	ZnEq metal (Mt)	Zn metal (Mt)	Pb metal (Mt)
Beach underground	Proved	19.0	5.5	5.2	0.5	1.0	1.0	0.1
	Probable	7.0	5.8	5.7	0.5	0.4	0.4	0.03
Esrum underground	Proved	-	-	-	-	-	-	-
	Probable	15.8	5.1	4.8	0.4	0.8	0.8	0.06
Discovery open pit	Proved	5.5	3.5	3.2	0.6	0.2	0.2	0.03
	Probable	1.4	2.5	2.3	0.4	0.04	0.03	0.01
Total	Proved	24.6	5.1	4.6	0.5	1.2	1.1	0.13
	Probable	24.2	5.1	5.0	0.4	1.2	1.1	0.10
	Total	48.8	5.1	4.8	0.5	2.5	2.3	0.24

The Ore Reserve is based on Measured and Indicated Resources only and does not include any Inferred Mineral Resources. JORC Table 1 included in an announcement to the ASX released on 19th July 2021: "2021 Bankable Feasibility Study Confirms Citronen as World Class Zinc Project" Ironbark confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Exploration Target

40 Mt to 90 Mt at 5.0% to 7.1% zinc + lead combined

Prospect Area	Prospective sulphide horizons	Tonnes from - to (Mt)	Zinc % Grade range	Lead % Grade range	Combined zinc + lead grade
East	L3/L4	3 to 5Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Western Gossans	L3/L4	5 to 8Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Beach South	L2/L3	4 to 10Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Esrum Extended	L3	12 to 28Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Discovery South East	L1/L2/L3	10 to 25Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Discovery North/Trilobite Valley	L2/L3/L4	6 to 14 Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead
Total		40 to 90 Mt	4.6 to 6.5% Zn	0.4 to 0.6 % Pb	5 to 7.1% zinc + lead

For further information on the Citronen Exploration Target, please see the ASX announcement dated 11 February 2021. The Exploration Target has not been included in the calculation of the life of mine or project NPV. The Exploration Target listed above is formed on the basis of historic exploration work at Citronen, including over 60,000m of diamond drilling and subsequent work sufficient to declare the Mineral Resource and Ore Reserve. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Ironbark plans to test the Exploration Targets as part of a phased exploration and resource development program. This multi-year program is planned to commence concurrently with mine development and construction, and is aimed at further improving the current Citronen mine plan through some potential combination of mine life extensions, grade uplift and/or the deferral of major lateral mine development in the current schedule. At present, Ironbark intends to undertake this work will take place within two years of construction beginning at Citronen.

A systematic drilling program is planned to test extensions to the known mineralisation at the newly identified conceptual target areas. IBG already has four drill rigs at Citronen that are available for any future exploration program, and any further exploration equipment will be mobilised in conjunction with the site construction activities as required.

The Exploration Target is based upon review of project drilling, rock chip samples and the limited geophysical data available. A 3D geological model of the project was used to assist in identifying prospective areas. Each area was systematically reviewed with tonnage ranges based on conceptual target sizes and area prospectivity. Exploration Target zinc and lead grade ranges and rock densities are based upon typical grades observed from the current Citronen Resource (refer to ASX announcement 12th March 2020). The Exploration Target calculation has been based on a combination of actual exploration results as discussed in this report and proposed exploration programmes.

“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 and Exploration Targets is based on information compiled by Ms Elizabeth Clare 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.

The mining-specific information in this report, which relates to Ore Reserves, is based on information compiled by Mr Andrew Gasmier CP (Mining), who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Gasmier is employed full time by Mining Plus. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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'. Mr Gasmier consents to the inclusion in the report of the matters based on his 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	New South Wales	100%	-
Citronen	ML 2016/30	Greenland	100%	-