



ABN 93 118 751 027

NOTICE OF GENERAL MEETING

TIME: 10.00 am (Perth time)

DATE: 20 December 2011

PLACE: The Celtic Club
48 Ord Street
WEST PERTH WA 6005

This Notice of Meeting should be read in its entirety. If Shareholders are in doubt as to how they should vote, they should seek advice from their professional advisers prior to voting.

Should you wish to discuss the matters in this Notice of Meeting prior to the General Meeting, please contact the Company Secretary on +61 8 6461 6350.

CONTENTS

CHAIRMAN'S LETTER	3
TIME AND PLACE OF MEETING AND HOW TO VOTE	7
NOTICE OF GENERAL MEETING	10
EXPLANATORY MEMORANDUM	12
Annexures	
A SUMMARY OF TERMS OF THE GLENCORE COMMERCIAL AGREEMENT	56
B SUMMARY OF TERMS OF THE NOTES SUBSCRIPTION AGREEMENT	58
C SUMMARY OF TERMS OF THE NOTES DEED POLL	63
D SUMMARY OF THE CONVERTIBLE NOTE SECURITY DOCUMENTS	67

CHAIRMAN'S LETTER

15 November 2011

Dear Shareholder

I am writing to invite you, as a shareholder of Ironbark Zinc Limited (**Company**), to attend a general meeting to be held on 20 December 2011 (**General Meeting**). The General Meeting will be held at the Celtic Club, 48 Ord Street, West Perth, commencing at 10.00 am (Perth time), with registration available from 9.30 am.

Further to the announcement by the Company to ASX on 14 October 2011, your Board is submitting to you a proposal that, if approved by Shareholders (and subject to the fulfilment of certain conditions, which are explained in the Explanatory Memorandum accompanying this Notice), will strongly position the Company to advance its growth strategy to become a leading international base metals company.

The primary purpose of the General Meeting is to consider and approve two resolutions that relate to the proposed transaction between the Company and a wholly owned subsidiary of Glencore International AG (**Glencore**), (the **Transaction**), which are summarised below.

Resolution 1: Approval of the issue of convertible notes and shares to Glencore Finance (Bermuda) Limited

Shareholders to consider approval for the Company to issue to Glencore:

- up to US\$50 million worth of notes convertible into shares in the Company (**Convertible Notes**); and
- such number of shares as may be required to be issued to Glencore upon any conversion of those Convertible Notes (as determined in accordance with the Notes Subscription Documents).

The purpose of issuing the Convertible Notes to Glencore is to provide to the Company a facility to fund:

- appropriate acquisitions, consistent with the Company's growth ambitions; and
- with Glencore's consent, working capital of the Company's corporate group.

Resolution 2: Approval of agreements with Glencore International AG

Shareholders to consider approval of the Glencore Commercial Agreement between the Company and Glencore, the Glencore Offtake Agreements between the Company and Glencore, the Glencore Global Offtake Agreement and the grant of the Convertible Note Security to Glencore (please see the further information set out in the Explanatory Memorandum accompanying this Notice).

Resolutions 1 and 2 are inter-conditional, meaning that each will only be effective if both are passed.

Mr David Kelly and Mr Greg McMillan

Mr David Kelly is a nominee of Glencore and Mr Greg McMillan is a nominee of Nyrstar (the Company's current largest Shareholder). All recommendations on both Resolutions (and any

views regarding the Transaction) contained in the Notice or the Explanatory Memorandum that are expressed as being made by the Board or the Directors are made by the Board or the Directors (as appropriate), excluding Mr Kelly and Mr McMillan.

Mr Kelly decided to abstain from voting on these matters and considers it appropriate not to make a recommendation because he is a nominee of Glencore.

Mr McMillan is an affiliate of Nyrstar, the Company's largest Shareholder. Nyrstar has informed Mr McMillan and the Company that it presently intends to abstain from voting on Resolutions 1 and 2 in order to allow minority Shareholders to determine whether or not the Transaction proceeds. In these circumstances, given his affiliation with Nyrstar and its objective as stated above, Mr McMillan does not consider it appropriate for him to make a recommendation that Shareholders vote either for or against the Resolutions.

Background to the Transaction

To advance the Company's growth strategy to become a leading international base metals company delivering significant shareholder benefits, your Directors believe it is important that the Company be supported by a strong shareholder base with supportive strategic partners. In this pursuit, the Company has continued to strengthen its relationship with one of its major shareholders, Glencore.

Glencore was founded in 1974 and is one of the world's leading integrated producers and marketers of commodities, with a multi-billion dollar market capitalisation Glencore has worldwide activities in the production, sourcing, processing, refining, transporting, storage, financing and supply of metals and minerals, energy products and agricultural products. Glencore became a publicly traded company in May 2011, with a primary listing on the London Stock Exchange and secondary listing on the Hong Kong Stock Exchange. Glencore's initial public offering was the largest in the history of the premium listing segment of the London Stock Exchange.

Need for your approval

The Transaction will only proceed if approved by Shareholders (and if certain other conditions are satisfied). The primary purpose of the General Meeting is for Shareholders to consider and vote on two resolutions required to implement the Transaction.

Implications if the Transaction is implemented

- Provides the Company with access to significant funding for the Company to pursue acquisition opportunities which are consistent with Ironbark's strategy to create a leading international base metals company.
- Strengthens the Company's relationship with Glencore.
- Secures attractive offtake arrangements with Glencore in respect of a portion of the Company's production and offtake or marketing arrangements in respect of any production acquired (in whole or in part) with funds obtained from issuing the Convertible Notes to Glencore.
- US\$30 million of the Convertible Notes are convertible into Shares at A\$0.42 per Share at the election of either Ironbark or Glencore, and US\$20 million of the Convertible Notes are convertible into Shares at \$0.50 per Share at the election of Glencore, an attractive premium to Ironbark's recent share price.
- If any Convertible Notes are issued, Glencore will have the right to request that the Company appoint to the Board at least three persons nominated by Glencore, such that those persons comprise one third of the aggregate number of Directors (excluding independent and non-executive Directors). Ironbark believes this has the potential to add

value to the Board by bringing in a significant depth of experience in the financing, development and operation of major base metal assets.

Implications if the Transaction is not implemented

- There can be no guarantee that alternative funding will be available to the Company, or, if available, that it will be offered on terms that are better than, or comparable to, the funding that may be obtained pursuant to the Transaction.
- The Company may not be able to proceed as effectively with its planned corporate development strategy, as it would if it obtained access to the Facility.

Your Directors' recommendation

In relation to Resolutions 1 and 2, your Directors makes the following recommendations.

Director	Position	Recommendation	Additional comments
Peter Bennetto	Non Executive Chairman	VOTE IN FAVOUR	The reasons for these Directors' recommendation are set out in section 2 of the Explanatory Memorandum
Jonathan Downes	Managing Director		
Adrian Byass	Executive Technical Director		
Gregory Campbell	Executive Director		
John McConnell	Non Executive Director		
Greg McMillan	Non Executive Director	NO RECOMMENDATION	The reasons for Mr McMillan's position are set out in section 2.4 of the Explanatory Memorandum
David Kelly	Non Executive Director		Mr Kelly is a nominee of Glencore and has decided not to make a recommendation to Shareholders in respect of Resolutions 1 and 2

In forming their recommendations, your Directors have taken into account a range of factors, including the expected advantages of the Transaction, its possible disadvantages and its risks. These are discussed in detail in the Explanatory Memorandum that accompanies this Notice. In addition, the Board notes that PricewaterhouseCoopers Securities Ltd, the Independent Expert, has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders. The Independent Expert's Report is included as Annexure E to the Explanatory Memorandum that accompanies this Notice.

Your Directors who hold Shares intend to **VOTE IN FAVOUR** of both Resolutions with respect to all Shares they hold.

The matters raised in this document are important and will directly affect your existing and future investment in the Company. I strongly encourage you to read this document carefully and in its entirety so that you have a complete understanding of the Transaction proposed and its expected impact on your investment in the Company.

Shareholders should be aware that there are a number of conditions, other than Shareholder approval of the Transaction, which must be satisfied before the Company can draw down on the US\$50 million Facility. These conditions are set out in the Explanatory Memorandum that accompanies this Notice. If these conditions are not satisfied, the Facility may not become available to the Company, despite the Shareholders approving the Transaction.

Finally, I would like to take this opportunity to thank you for your continued support of the Company as we embark on a very exciting period of growth.



Peter Duncombe Bennetto

Non Executive Chairman

TIME AND PLACE OF MEETING AND HOW TO VOTE

1. VENUE

The General Meeting will be held:

TIME: 10.00 am (Perth time)

DATE: 20 December 2011

PLACE: The Celtic Club
48 Ord Street
WEST PERTH WA 6005

2. YOUR VOTE IS IMPORTANT

The business of the General Meeting affects the Company and your vote is important.

A Shareholder who is entitled to attend and vote may vote in person or by proxy or attorney. A Shareholder which is a corporation may appoint an individual as a representative.

3. VOTING IN PERSON

To vote in person, attend the General Meeting on the date and at the place set out above.

4. VOTING BY PROXY

A Shareholder may appoint not more than two proxies to attend and vote on their behalf. Where more than one proxy is appointed, such proxy must be allocated a proportion of the Shareholder's voting rights. If a Shareholder appoints two proxies and the appointment does not specify this proportion, each proxy may exercise half the votes. A duly appointed proxy need not be a Shareholder.

To appoint a proxy (or proxies) you must complete the attached Proxy Form and lodge it, not less than 48 hours before the start time of the General Meeting (ie by 10.00 am (Perth time) on 18 December 2011) at the following:

Post	Fax	Email
Security Transfer Registrars Pty Ltd PO Box 535 APPLECROSS WA 6953	Security Transfer Registrars Pty Ltd +61 8 9315 2233	Security Transfer Registrars Pty Ltd registrar@securitytransfer.com.au

Proxy Forms received after this time will be invalid.

Shareholders and their proxies should also be aware that new sections 250BB and 250BC of the Corporations Act apply to voting by proxy at this General Meeting. Broadly, the changes mean that:

- if proxy holders vote, they must cast all directed proxies as directed; and
- any directed proxies which are not voted will automatically default to the Chairman, who must vote the proxies as directed.

More detail on these recent changes is provided below.

Proxy vote if appointment specifies way to vote

Section 250BB provides that an appointment of a proxy may specify the way the proxy is to vote on a particular resolution and, if it does:

- the proxy need not vote on a show of hands, but if the proxy does so, the proxy must vote that way (ie as directed);
- if the proxy has two or more appointments that specify different ways to vote on the resolution – the proxy must not vote on a show of hands;
- if the proxy is the chair of the meeting at which the resolution is voted on – the proxy must vote on a poll, and must vote that way (ie as directed); and
- if the proxy is not the chair – the proxy need not vote on the poll, but if the proxy does so, the proxy must vote that way (ie as directed).

Transfer of non-chair proxy to chair in certain circumstances

Section 250BC provides that, if:

- an appointment of a proxy specifies the way the proxy is to vote on a particular resolution at a meeting of the company's members;
- the appointed proxy is not the chair of the meeting;
- at the meeting, a poll is duly demanded on the resolution; and
- either of the following applies:
 - if a record of attendance is made for the meeting - the proxy is not recorded as attending the meeting;
 - the proxy does not vote on the resolution,

the chair of the meeting is taken, before voting on the resolution closes, to have been appointed as the **proxy** for the purposes of voting on the resolution at the meeting.

5. VOTING BY CORPORATE REPRESENTATIVE

A body corporate which is a Shareholder, or which has been appointed as a proxy, may appoint an individual to act as its representative at the General Meeting. The appointment must comply with the requirements of section 250D of the Corporations Act. The representative should bring to the General Meeting, evidence of appointment, including any authority under which it is signed, unless it has previously been given to the Company.

6. VOTING BY ATTORNEY

A Shareholder may appoint an attorney to vote on their behalf. For an appointment to be effective for the General Meeting, the instrument effecting the appointment (or a certified copy of it) must be received by the Company in one of the methods listed above for the receipt of Proxy Forms, so that it is received not later than 10.00 am (Perth time) on 18 December 2011.

7. VOTING ENTITLEMENT

The Directors have determined that the persons eligible to vote at the General Meeting are those people who are registered as Shareholders of the Company at 4.00pm (Perth time) on 18 December 2011.

NOTICE OF GENERAL MEETING

Notice is given that a general meeting of Shareholders of Ironbark Zinc Limited ABN 93 118 751 027 will be held at the Celtic Club, 48 Ord Street, West Perth, on 20 December 2011 at 10.00 am(Perth time).

The Explanatory Memorandum to this Notice of Meeting provides additional information on the matters to be considered at the General Meeting. The Explanatory Memorandum (including all annexures) and the Proxy Form each forms part of this Notice of Meeting.

Terms and abbreviations used in this Notice of Meeting and Explanatory Memorandum are defined in the Glossary in section 15 of the Explanatory Memorandum.

AGENDA

1. RESOLUTION 1: APPROVAL OF THE ISSUE OF CONVERTIBLE NOTES AND SHARES TO GLENCORE FINANCE (BERMUDA) LIMITED

To consider and, if thought fit, pass the following resolution as an **ordinary resolution**:

That, subject to the passing of Resolution 2, for the purposes of item 7 of section 611 of the Corporations Act 2001 (Cth) and for all other purposes, approval is given for the Company to issue to:

- *Glencore Finance (Bermuda) Limited up to US\$50 million worth of Convertible Notes; and*
- *Glencore Finance (Bermuda) Limited (or any persons to whom it transfers Convertible Notes), upon conversion of the Convertible Notes, such number of fully paid ordinary shares in the capital of the Company required for conversion of those notes as determined in accordance with the Notes Subscription Documents,*

on the terms and conditions set out in the Explanatory Memorandum accompanying this Notice.

Voting prohibition statement

Under item 7 of section 611 of the Corporations Act, each of Glencore and any associate of Glencore is precluded from voting in favour of Resolution 1.

2. RESOLUTION 2: APPROVAL OF AGREEMENTS WITH GLENCORE INTERNATIONAL AG AND GRANT OF SECURITY TO GLENCORE FINANCE (BERMUDA) LIMITED

To consider and, if thought fit, pass the following resolution as an **ordinary resolution**:

That, subject to the passing of Resolution 1, for the purposes of Rule 10.1 of the Listing Rules of ASX Limited and for all other purposes, Shareholders approve the:

- *Glencore Commercial Agreement between the Company and Glencore International AG;*
- *Zinc Offtake Agreement between the Company and Glencore International AG;*
- *Lead Offtake Agreement between the Company and Glencore International AG;*
- *Glencore Global Offtake Agreement; and*
- *grant of the Convertible Note Security to Glencore Finance (Bermuda) Limited,*

on the terms and conditions set out in the Explanatory Memorandum accompanying this Notice.

Voting exclusion statement

The Company will disregard any votes cast on Resolution 2 by Glencore and any associate of Glencore. However, the Company need not disregard a vote if:

- it is cast by a person as proxy for a person who is entitled to vote, in accordance with the direction on the proxy form; or
- it is cast by the person chairing the meeting as proxy for a person who is entitled to vote, in accordance with a direction on the proxy form to vote as the proxy decides.

DATED: 18 November 2011

BY ORDER OF THE BOARD

Mr Robert Orr
Company Secretary

EXPLANATORY MEMORANDUM

Purpose of the Explanatory Memorandum

This Explanatory Memorandum has been prepared for Shareholders in connection with the business to be conducted at the General Meeting to be held at the Celtic Club, 48 Ord Street, West Perth, on 20 December 2011 at 10.00 am (Perth time).

The Explanatory Memorandum provides information which the Directors believe to be material to Shareholders in deciding whether or not to pass the Resolutions contained in the Notice of Meeting. This Explanatory Memorandum does not take into account the individual investment objectives, financial situation and needs of Shareholders or any other person. Accordingly, it should not be relied on solely in determining how to vote on the Resolutions.

The Notice of Meeting, Explanatory Memorandum, Independent Expert's Report and Proxy Form are all important documents. They should be read carefully in their entirety before you make a decision on how to vote at the General Meeting.

If you have any questions regarding the matters set out in the documents, please contact the Company Secretary on +61 8 6461 6350 or visit the Company's website (www.ironbark.gl). You should also contact your stockbroker, accountant, lawyer or other professional adviser.

Definitions

Capitalised terms used in this Explanatory Memorandum are defined in the Glossary in section 15.

Key dates

The key dates associated with the General Meeting and this document are set out below:

Event	Date
Date of the Notice of Meeting and Explanatory Memorandum	18 November 2011
Completed Proxy Form to be received no later than	10.00 am (Perth time) on 18 December 2011
Date and time for determining eligibility to attend and vote at the General Meeting	4.00 pm (Perth time) on 18 December 2011
General Meeting of Shareholders	10.00 am (Perth time) on 20 December 2011

Forward looking statements

Certain statements in this Explanatory Memorandum relate to the future. These statements reflect views only as of the date of this Explanatory Memorandum. While the Company believes that the expectations reflected in the forward looking statements are reasonable, neither the Company nor any other person gives any representation, assurance or guarantee that the occurrence of an event expressed or implied in any forward looking statements in this Explanatory Memorandum will actually occur.

Notice to persons outside Australia

This Explanatory Memorandum has been prepared in accordance with Australian laws, disclosure requirements and accounting standards. These laws, disclosure requirements and accounting standards may be different to those in other countries.

The distribution of this Explanatory Memorandum may, in some countries, be restricted by law or regulation. Accordingly, persons who come into possession of this Explanatory Memorandum should inform themselves of, and observe, any such restrictions.

Disclaimers

No person is authorised to give any information or make any representation in connection with the Transaction which is not contained in this Explanatory Memorandum. Any information or representation not contained in this Explanatory Memorandum, may not be relied on as having been authorised by the Company or the Board in connection with the Transaction.

Privacy

To assist the Company to conduct the General Meeting, the Company may collect personal information including names, contact details and shareholding of Shareholders and the names of persons appointed by Shareholders to act as proxy at the General Meeting. Personal information of this nature may be disclosed by the Company to its share registry, print and mail service providers, and the Company's agents for the purposes of implementing the Transaction. Shareholders have certain rights to access their personal information that has been collected and should contact the Company Secretary on +61 8 6461 6350 if they wish to access their personal information.

Responsibility for information

The information contained in this Explanatory Memorandum (except for the Independent Expert's Report and information regarding Glencore and its intentions) has been prepared by the Company and is the responsibility of the Company. Glencore assumes no responsibility for the accuracy or completeness of that information. Information concerning Glencore (in section 5) and its intentions (in section 10) has been provided by Glencore. None of the Company, its associates or its advisers assumes any responsibility for the accuracy or completeness of that information.

PricewaterhouseCoopers Securities Ltd has prepared the Independent Expert's Report and has consented to the inclusion of the report, and references to it, in this Explanatory Memorandum. PricewaterhouseCoopers Securities Ltd takes responsibility for that report, and references to it, but is not responsible for any other information contained within this Explanatory Memorandum.

Shareholders are urged to read the Independent Expert's Report carefully to understand the scope of the report, the methodology of the assessment, the sources of information and the assumptions made.

Competent Person consent statement

The information in this Explanatory Memorandum that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr A Byass, B.Sc Hons (Geol), B.Econ, FSEG, MAIG, an employee of Ironbark Zinc Limited. Mr Byass has sufficient experience that 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 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Byass consents to the inclusion in this Explanatory Memorandum of the matters based on this information in the form and context in which it appear.

ASIC and ASX involvement

A copy of the Notice of Meeting and Explanatory Memorandum has been lodged on 2 November 2011 with ASIC pursuant to ASIC Regulatory Guide 74 and ASX pursuant to the Listing Rules. Neither ASIC, ASX nor any of their officers take any responsibility for the contents of the Notice of Meeting and Explanatory Memorandum.

APPROVAL OF THE TRANSACTION (RESOLUTIONS 1 AND 2)***Key reasons why you should vote in favour of the Transaction***

The Company considers that the Transaction has a number of benefits for Shareholders, as summarised below and set out in more detail in section 2.1 (Key Reasons for the Transaction) of this Explanatory Memorandum.

- 1. Provides important funding for growth and diversification**
- 2. Strengthens the Company's strategic relationship with Glencore**
- 3. Secures attractive offtake and marketing arrangements**
- 4. The Convertible Notes convert to Shares on attractive terms – at a premium to the current Ironbark Share price**
- 5. Potential for a strengthened Board**
- 6. The majority of your Board supports the Transaction (see section 1.12 for information about the respective positions of Mr David Kelly and Mr Greg McMillan, both of whom have decided to make no recommendation to Shareholders in respect of the Transaction)**
- 7. The Independent Expert has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders**

The majority of your Board fully supports the Transaction and recommends that you VOTE IN FAVOUR of Resolution 1 and Resolution 2 (other than Mr Kelly and Mr McMillan, each of whom makes no recommendation to Shareholders for the reasons set out in section 1.12).

Potential disadvantages of the Transaction

Even though the majority of the Board supports the Transaction, you should be aware that there are some potential disadvantages of the Transaction, as summarised below and set out in more detail in section 3 of this Explanatory Memorandum.

- 1. Dilution of the existing interests of Shareholders if the Convertible Notes are converted into Shares**
- 2. If all of the Convertible Notes are converted into Shares, Glencore will substantially increase its potential maximum voting power in the Company**
- 3. Potential for Glencore to be put in a position to exercise significant influence on the operations of the Company, including through Board appointments**
- 4. The Independent Expert has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders. Notwithstanding the conclusion that the Transaction is not fair, the majority of your Board recommends you vote in favour of the Transaction, for the reasons set out above.**

1. DETAILS OF THE TRANSACTION

1.1 The Transaction

The proposed transaction between the Company and Glencore (**Transaction**) comprises the following elements:

- (a) **Glencore Commercial Agreement:** The Company and Glencore entering into the Glencore Commercial Agreement pursuant to which the parties agree that (subject to satisfaction of certain conditions):
 - (i) Glencore will make available to the Company the Facility, on the terms of the Notes Subscription Documents;
 - (ii) the Company will grant offtake to Glencore of:
 - (A) 35% of the production of zinc concentrates from the Citronen Project from the date of the Facility, under the Zinc Offtake Agreement entered into by the parties (increasing to an aggregate of 55% of such production if any amount is drawn down under the Facility); and
 - (B) 35% of the production of lead concentrates from the Citronen Project from the date of the Facility, under the Lead Offtake Agreement entered into by the parties (increasing to an aggregate of 55% of such production if any amount is drawn down under the Facility);
 - (iii) the Company will use its best endeavours to allocate to Glencore all offtake of any base metal produced by the Company (or any of its subsidiaries) from the date of the Glencore Commercial Agreement from:
 - (A) assets owned by them as at the date of the Glencore Commercial Agreement (excluding the Citronen Project); and
 - (B) any acquired Target,

that is in a state suitable for sale under the Glencore Global Offtake Agreement (other than any production which is already subject to an offtake to Glencore) (**Non-Citronen Production**), only to the extent such Non-Citronen Production is available for offtake to Glencore, for life of mine; and
 - (iv) if any Non-Citronen Production is not available for offtake to Glencore, including at the time of acquisition of a Target (**Non-Available Production**), the Company will pay Glencore a marketing fee of 1% of the value of that Non-Available Production (**Marketing Fee**), with the intent of bringing any such Non-Available Production within offtake arrangements when possible (in which case, the Marketing Fee would cease to be payable in respect of that production).
- (b) **Notes Subscription Documents:** The Company and Glencore entering into the Notes Subscription Agreement and Notes Deed Poll pursuant to which Glencore agrees to make available to the Company the US\$50 million Facility, and the Company agrees to issue Convertible Notes (convertible into Shares) to Glencore and grant the Convertible Note Security to Glencore (subject to the fulfilment of certain conditions, summarised in section 1.4).

- (c) **Glencore Offtake Agreements:** The Company granting offtake to Glencore for the sale of 35% (increasing to 55% upon first draw down of the Facility) of:
- (i) the total annual zinc concentrates shipped from the Citronen Project for a period of 10 years following the start of commercial mining, pursuant to the Zinc Offtake Agreement; and
 - (ii) the total lead concentrates shipped from the Citronen Project, for life of mine, pursuant to the Lead Offtake Agreement.

Further details of the Glencore Commercial Agreement, Notes Subscription Documents, Glencore Offtake Agreements and Glencore Global Offtake Agreement are provided in sections 1.3, 1.4, 1.6 and 1.7 below.

1.2 Purpose of the Transaction

The key purpose of the Transaction is to provide the Company with access to sufficient monies, by way of the Facility, to fund:

- cash consideration payable in respect of future acquisitions, which the Company may determine to make and which are approved by Glencore (each a **Target Acquisition**);
- costs and expenses incurred in connection with any Target Acquisition; and
- with Glencore's consent, working capital of the Company's corporate group.

Consistent with the purpose of issuing the Convertible Notes, Glencore must approve any proposed Target Acquisition before the Company can apply the Facility to fund that acquisition, whether in whole or in part.

1.3 Glencore Commercial Agreement

The Company and Glencore entered into the Glencore Commercial Agreement dated 13 October 2011 pursuant to which the parties have agreed:

- (a) to enter into the Notes Subscription Documents and for Glencore to make available to the Company the US\$50 million Facility;
- (b) to enter into the Glencore Offtake Agreements;
- (c) that the existing agency arrangement between Glencore and the Company will be amended so that any tonne of concentrate sold to Glencore under the Glencore Offtake Agreements will be deducted from the Quantity (as defined in the heads of agreement dated 11 April 2007 between Glencore and the Company);
- (d) that the Company will use its best endeavours to allocate to Glencore all offtake of any Non-Citronen Production that is available for sale, for life of mine, on standard Asian terms (and, in respect of base metals, on the terms of the Glencore Global Offtake Agreement); and
- (e) that the Company will pay Glencore the Marketing Fee in respect of any Non-Available Production, and that:
 - (i) Glencore will provide any market information and other assistance to the Company as requested by the Company in respect of that Non-Available Production;
 - (ii) the Company will use all reasonable endeavours to minimise the duration of any pre-existing offtake agreement (or equivalent) with parties other

than Glencore (having regard to the commercial effect of any minimisation of the duration of such offtakes); and

- (iii) if and when offtake of any Non-Available Production becomes available, then:
 - (A) such Non-Available Production will cease to be counted for the purposes of the Marketing Fee;
 - (B) if a Glencore Global Offtake Agreement exists, such Non-Available Production will be included within the scope of the Global Offtake Agreement; and
 - (C) if no Glencore Global Offtake Agreement exists, the parties will enter into a Global Offtake Agreement in respect of that Non-Available Production.

The obligations summarised in paragraphs (a) to (e) (inclusive) above are conditional on, amongst other things, Shareholders approving Resolution 1 and Resolution 2. In addition, the obligations in paragraphs (d) and (e) are of no force and effect prior to the first issue of Convertible Notes under the Notes Subscription Documents.

A summary of the terms and conditions of the Glencore Commercial Agreement is set out in Annexure A.

1.4 Notes Subscription Documents

The Company and Glencore entered into the "Ironbark Zinc Limited Convertible Notes Subscription Agreement" dated 13 October 2011 (**Notes Subscription Agreement**) pursuant to which Glencore agreed to make available to the Company the US\$50 million Facility. If the Company requests a drawdown under the Notes Subscription Agreement, then, subject to conditions precedent set out in the Notes Subscription Agreement (described further below), the Convertible Notes will be issued on the terms of the "Ironbark Zinc Limited – Convertible Notes Deed Poll" to be executed by the Company on or before the first issue of the Convertible Notes (**Notes Deed Poll**). Together, the Notes Subscription Agreement and the Notes Deed Poll are referred to as the **Notes Subscription Documents**.

The Facility being made available to the Company pursuant to the Notes Subscription Documents will be split into two tranches:

- Tranche 1: up to US\$30 million (**Tranche 1**); and
- Tranche 2: up to US\$20 million (**Tranche 2**).

Key terms of the Notes Subscription Documents are:

- (a) upon drawdown of the Facility, the Company will issue Convertible Notes to Glencore;
- (b) the purpose of issuing the Convertible Notes is solely to fund the cash consideration in respect of any Target Acquisition (and any costs and expenses incurred in connection with it) and, with Glencore's consent, working capital of the Company's corporate group;
- (c) the Convertible Notes will be freely transferable, and convertible to Shares at the conversion price (subject to adjustment in certain circumstances) of:

- (i) A\$0.42 for Tranche 1 Convertible Notes, convertible at the election of the Company or Glencore, during the relevant conversion period (which, in respect of each Convertible Note, commences 18 months after its date of issue); and
 - (ii) A\$0.50 for Tranche 2 Convertible Notes, convertible at the election of Glencore, during the relevant conversion period (which, in respect of each Convertible Note, commences 18 months after its date of issue);
- (d) the Convertible Notes will bear an interest at the rate of LIBOR plus 5%;
- (e) the Convertible Notes will be redeemed:
 - (i) during the relevant conversion period (which, in respect of each Convertible Note, commences 18 months after its date of issue), at the Company's option (however, if the Company issues a redemption notice under this mechanism, the noteholders will have the option to convert the Convertible Notes, instead of having them redeemed);
 - (ii) on their maturity date (being the fourth anniversary of their issue), if they have not previously been redeemed or purchased and cancelled by the Company;
 - (iii) by mandatory quarterly amortisation, involving partial redemption beginning 18 months after the issue date; or
 - (iv) at the Company's option, where a change in tax law would cause the company to pay additional tax in relation to the Convertible Notes (unless the noteholder elects to waive any tax gross-up arising as a result of the change in tax law); and
- (f) as long as any Convertible Notes remain outstanding, the Company must procure the appointment to its Board of at least three Glencore nominees, so that they comprise one third of the Directors (excluding independent and non-executive Directors) (refer to section 9.3).

As the Convertible Notes are denominated in United States dollars and the conversion price is denominated in Australian dollars, the Company is exposed to an exchange rate risk (refer to section 8.4)

Key conditions precedent to the issue of the Convertible Notes are as follows.

- (a) In relation to the **first** Convertible Note to be issued, Glencore will only be obliged to subscribe and pay for the Convertible Note if:
 - (i) the Shareholders have approved:
 - (A) the issue of the Convertible Notes (and Shares on their conversion) for the purposes of ASX Listing Rule 7.1 and section 611, item 7 of the Corporations Act (being approval of Resolution 1);
 - (B) the entry into the Commercial Documents, and, if the Target is a company, the grant of the Target Equitable Share Mortgage, for the purposes of ASX Listing Rule 10.1 (being approval of Resolution 2); and
 - (C) any other approvals required to carry out the transactions in connection with the issue of Convertible Notes, the entry into the

Commercial Documents and the grant of the Target Equitable Share Mortgage under the ASX Listing Rules or the Corporations Act;

- (ii) Glencore receives before the relevant deadline the closing documents (which include evidence that the Company's directors have approved the Notes Subscription Agreement, the Target Equitable Share Mortgage (if the Target is a company), the Notes Deed Poll, the Commercial Documents, and the transactions they contemplate);
 - (iii) the Notes Deed Poll, the Commercial Documents (other than the Glencore Global Offtake Agreement) and the Target Equitable Share Mortgage (if the Target is a company) have been executed; and
 - (iv) Glencore obtains any other necessary approvals (including under the *Foreign Acquisitions and Takeovers Act 1975* (Cth)).
- (b) In relation to **all** Convertible Notes (including the first Convertible Note), Glencore will only be obliged to subscribe and pay for the Convertible Notes if:
- (i) no previously undisclosed event occurs that has or could reasonably be expected to have a material adverse effect on the Company, provided that the Company may seek confirmation from Glencore that this condition is satisfied, in which case it will be satisfied for any Target Acquisition announced or completed (as applicable, depending on whether the relevant Target is a listed company or not) within two Business Days of the confirmation of satisfaction;
 - (ii) none of a set of prescribed events (all of which are usual for this type of transaction) occurs on or before the Closing Date for that issuance of Convertible Notes. Included in the set of prescribed events is the triggering of any "Target MAC" condition. "Target MAC" condition means, in respect of a Target Acquisition where the Target is a listed company, any "material adverse change" condition included in the Bidder's Statement in respect of that Target Acquisition at the request of Glencore, the occurrence of which permits the Company to not complete that Target Acquisition (provided that the Company has not waived the Target MAC condition and that the Takeovers Panel has not determined that it cannot be relied upon);
 - (iii) the Company has told Glencore the identity of the Target and Glencore has confirmed:
 - (A) that it accepts the proposed Target Acquisition, which approval will expire if:
 - (I) (where the Target is a listed company) the Company has not, within 15 business days of receipt of the confirmation, publicly announced an intention to make the Target Acquisition; or
 - (II) (where the Target is assets other than a listed company) the Target Acquisition is not completed within any time period prescribed by Glencore at the time it gives the confirmation; and
 - (B) any further conditions precedent that Glencore determines, in its discretion, are required having regard to the nature of the Target or the Target Acquisition;

- (iv) the Company has satisfied any additional conditions precedent specified by Glencore; and
- (v) the proposed Target Acquisition has not lapsed, been withdrawn or has otherwise not proceeded at any time after the Company has received Glencore's written confirmation of it.

Glencore's obligation to subscribe for Convertible Notes is subject to the Convertible Notes Security being put in place (please see section 1.5).

A summary of the terms and conditions of the Notes Subscription Agreement and Notes Deed Poll are set out in Annexure B and Annexure C respectively.

1.5 Convertible Note Security

The Convertible Note Security is required pursuant to the terms of the Notes Subscription Agreement (the key terms of which are set out in section 1.4 and Annexure B).

It is a condition of the Facility that the Company provide the following security to Glencore (**Convertible Note Security**):

- (a) if the Target Acquisition relates to shares in a company (**target company**):
 - (i) the Target Equitable Share Mortgage (and if applicable, a sponsorship agreement) before the first drawdown under the Facility;
 - (ii) if any shares in the target company are held by a wholly owned subsidiary of the Company, an Accession Letter from that subsidiary before the first drawdown under the Facility; and
 - (iii) if the Company acquires 100% of the shares in the target company, then within 60 days after that time:
 - (A) an Accession Letter from the target company;
 - (B) the Target Fixed and Floating Charge; and
 - (C) a legal opinion from the Company's legal counsel as to the legal status of the Company, the capacity and power of the target company to enter into the security, and a legal opinion from Glencore's legal counsel on the enforceability of the security; and
- (b) if the acquisition relates to assets (other than a company), within five days of completing the acquisition:
 - (i) security over the assets to support the Company's obligations under the Convertible Note Documents; and
 - (ii) a legal opinion from the Company's legal counsel as to the capacity and power of the Company to enter into the security, and a legal opinion from Glencore's legal counsel on the enforceability of the security.

1.6 Glencore Offtake Agreements

The Company and Glencore entered into the Glencore Offtake Agreements dated 13 October 2011 pursuant to which the Company agreed to grant offtake to Glencore for the sale of production of zinc and lead concentrates from the Company's Citronen Project.

The Glencore Offtake Agreements are on standard commercial terms, with INCOTERMS 2010 applying.

Key terms of the Lead Offtake Agreement are:

- (a) **(conditionality)** the Lead Offtake Agreement is conditional on Shareholders approving Resolution 2;
- (b) **(quantity)** the Company will sell to Glencore 35% (increasing to 55% if any amount is drawn down under the Facility) of the total lead concentrates shipped from the Citronen Project;
- (c) **(shortfall)** if the Company does not deliver 35% or 55%, as applicable, of the lead concentrates produced from the Citronen Project in a contractual year, Glencore may elect to have the shortfall carried over into the following year;
- (d) **(duration)** the duration of the offtake arrangements is for life of mine, beginning with the start of commercial mining at the Citronen Project;
- (e) **(price)** the price will be determined based on the content of lead, silver and gold in the product delivered to Glencore, with deductions for a lead content treatment charge, silver refining charge, gold refining charge and penalties to be applied where the levels of certain metals and minerals in the product delivered exceed the agreed maximum;
- (f) **(force majeure)** the contract contains a force majeure clause that can provide relief to the affected party for up to 60 days (following which, the party not claiming force majeure may terminate the Lead Offtake Agreement – except in respect of quantity for which the relevant quotational period has started, or Glencore has booked vessel space, in which case the parties will seek to find a reasonable solution for both sides). Force majeure events are defined broadly, and any quantity affected by a force majeure event is to be deducted from the quantity to be delivered and accepted under the Lead Offtake Agreement;
- (g) **(termination)** either party can terminate the agreement if the other party commits a material breach, and (if the breach is capable of being remedied) does not remedy the breach within 20 days, or becomes insolvent (or similar); and
- (h) **(change of ownership)** the Lead Offtake Agreement will continue in full force, regardless of any change of ownership of the Company.

Key terms of the Zinc Offtake Agreement are:

- (a) **(conditionality)** the Zinc Offtake Agreement is conditional on Shareholders approving Resolution 2;
- (b) **(quantity)** the Company will sell to Glencore 35% (increasing to 55% if any amount is drawn down under the Facility) of the total annual zinc concentrates shipped from the Citronen Project;
- (c) **(duration)** the duration of the offtake arrangements is ten years, beginning with the start of commercial mining at the Citronen Project;
- (d) **(price)** the price will be determined based on the content of zinc and silver in the product delivered to Glencore, with deductions for a treatment charge and penalties to be applied where the levels of certain metals and minerals in the product delivered exceed the agreed maximum;
- (e) **(force majeure)** the contract contains a force majeure clause that can provide relief to the affected party for up to 60 days (following which, the party not claiming force majeure may terminate the Zinc Offtake Agreement – except in respect of quantity for which the relevant quotational period has started, or Glencore has

booked vessel space, in which case the parties will seek to find a reasonable solution for both sides). Force majeure events are defined broadly, and any quantity affected by a force majeure event is to be deducted from the quantity to be delivered and accepted under the Zinc Offtake Agreement;

- (f) **(termination)** either party can terminate the agreement if the other party commits a material breach, and (if the breach is capable of being remedied) does not remedy the breach within 20 days, or becomes insolvent (or similar); and
- (g) **(change of control)** the Zinc Offtake Agreement will continue in full force, regardless of any change of control of the Company.

1.7 Glencore Global Offtake Agreement

Under the terms of the Glencore Commercial Agreement, the Company must use best endeavours to allocate to Glencore all offtake of any Target Production, for life of mine, by entering into the Glencore Global Offtake Agreement.

The Glencore Global Offtake Agreement will be on standard Asian benchmark terms (and is intended to be in a similar form to the Glencore Offtake Agreements), with the following key matters to be determined or finalised within those Asian benchmark parameters (where applicable):

- (a) the project or assets the offtake will concern;
- (b) the price mechanism;
- (c) delivery arrangements; and
- (d) termination, material adverse change and change of control provisions (if any).

1.8 Implications if the Transaction is not approved

If the Transaction is not approved (that is, if both Resolutions 1 and 2 are not approved), certain conditions precedent to the Glencore Commercial Agreement, Notes Subscription Agreement, Glencore Offtake Agreements and Glencore Global Offtake Agreement will not be satisfied. This means that, if the Transaction is not approved:

- the US\$50 million Facility will not be made available to the Company;
- the Company will not issue any Convertible Notes to Glencore; and
- the Glencore Commercial Agreement, Glencore Offtake Agreements and Glencore Global Offtake Agreement will not become effective.

The consequences for the Company of the Transaction not proceeding are set out in section 4 below.

1.9 Facility may not become available, even if the Transaction is approved

Even if the Transaction is approved at the General Meeting, Shareholders should be aware that the Facility may still not become available as a result of other conditions to the Notes Subscription Agreement not being satisfied (see section 1.3 for further details about these conditions).

Shareholders should also be aware that, even if all conditions are satisfied and the Facility becomes available, the Company may choose not to draw down any funds under the Facility, if it cannot identify an appropriate acquisition opportunity, or if it fails to secure the acquisition of any such opportunity.

1.10 Inter-conditional resolutions

Given that the terms of the relevant agreements the subject of the Transaction (as summarised in section 1.1) are inter-conditional, the Directors also consider it appropriate to propose Resolutions 1 and 2 as inter-conditional resolutions. This means that for the Transaction to proceed as proposed, both Resolution 1 and Resolution 2 must be approved by Shareholders. If either of Resolution 1 or Resolution 2 is not approved by Shareholders, the Transaction will not proceed as currently proposed.

1.11 Independent Expert's Report

In order to assist Shareholders to assess the Transaction and consider whether to vote in favour of Resolutions 1 and 2, the Company has appointed PricewaterhouseCoopers Securities Ltd, the Independent Expert, to prepare an Independent Expert's Report. The purpose of the report is to state whether or not, in the Independent Expert's opinion, the Transaction is fair and reasonable to Shareholders not associated with the Transaction (ie non-associated Shareholders).

The Independent Expert has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders.

A brief summary of the Independent Expert's conclusions is set out in section 11. A copy of the Independent Expert's Report is contained in Annexure E.

1.12 Directors' recommendations

The majority of the Board fully supports the Transaction and recommends that Shareholders VOTE IN FAVOUR of Resolutions 1 and 2, for the reasons set out in section 2.1 below.

Mr Kelly is a nominee of Glencore and has decided to abstain from voting on these matters and so DOES NOT MAKE A RECOMMENDATION.

Mr McMillan DOES NOT MAKE A RECOMMENDATION. Mr McMillan is an affiliate of Nyrstar, the Company's largest Shareholder. Nyrstar has informed Mr McMillan and the Company that it presently intends to abstain from voting on Resolutions 1 and 2 in order to allow minority Shareholders to determine whether or not the Transaction proceeds. In these circumstances, given his affiliation with Nyrstar and its objective as stated above, Mr McMillan does not consider it appropriate for him to make a recommendation that Shareholders vote either for or against the Resolutions.

2. RATIONALE FOR THE TRANSACTION

To advance the Company's growth strategy to become a leading international base metals company delivering significant shareholder benefits, the Directors believe it is important that the Company be supported by a strong shareholder base with supportive strategic partners. In this pursuit, the Company has continued to strengthen its relationship with one of the major Shareholders, Glencore.

Glencore was founded in 1974 and is one of the world's leading integrated producers and marketers of commodities, with a multi-billion dollar market capitalisation. Glencore has worldwide activities in the production, sourcing, processing, refining, transporting, storage, financing and supply of metals and minerals, energy products and agricultural products. Glencore became a publicly traded company in May 2011, with a primary listing on the London Stock Exchange and secondary listing on the Hong Kong Stock Exchange. Glencore's initial public offering was the largest in the history of the premium listing segment of the London Stock Exchange.

The majority of your Board recommends that Shareholders **vote in favour of Resolutions 1 and 2**, other than Mr Kelly and Mr McMillan, who make no recommendation to Shareholders for the reasons stated in section 1.12 above.

The Transaction has a number of benefits for the Company and Shareholders, as set out below.

2.1 Key reasons for the Transaction

1. Provides important funding for growth and diversification

The Facility will provide the Company with access to considerable funding to pursue growth opportunities consistent with its strategy to become a leading international base metals company.

This may involve acquiring assets or companies that have base metal assets other than zinc, in jurisdictions where the Company does not currently operate, which would provide the Company with the potential for operational, commodity and geographic diversification. The Board considers that such diversification has the potential to deliver significant net benefits to the Company.

The timing of the Facility is particularly attractive for the Company, with global financial uncertainty resulting in growing opportunities for well-funded companies to expand through inorganic growth. The Board considers that the ability to offer significant cash consideration to secure base metal project(s) (which the Facility would allow the Company to do) is highly valuable in the present market.

The benefits of increased scale and project diversification as a result of successful acquisitions funded by the Facility may also result in the Company's cost of capital for future funding being improved.

If the Transaction is not approved, the Company may not be able to proceed as effectively with its planned corporate development, as it would if it obtained access to the Facility.

2. Strengthens the Company's strategic relationship with Glencore

The Transaction is expected to strengthen the Company's relationship with Glencore, a strong, well-funded partner. Glencore currently owns 11.97% of the outstanding shares in the Company.

If the Transaction is not approved, the Company may not be able to secure future strategic and funding support from its shareholder Glencore, potentially making it more difficult for the Company to pursue organic and inorganic growth opportunities.

3. Secures attractive offtake and marketing arrangements

The Transaction secures attractive offtake arrangements with Glencore in respect of a portion of the Company's production from the Citronen Project and offtake or marketing arrangements in respect of Non-Citronen Production (which includes any production capacity acquired, in whole or in part, with funds drawn down under the Facility). Securing offtake allocations to a counterparty of Glencore's standing provides increased certainty and credibility to the Citronen Project.

4. The Convertible Notes convert to Shares on attractive terms – at a premium to current Share price

US\$30 million of the Convertible Notes are convertible into Shares at A\$0.42 per Share at the election of either the Company or Glencore, and an additional US\$20 million of the Convertible Notes are convertible into Shares at A\$0.50 per Share at the election of Glencore, both of which represent an attractive premium to the Company's recent Share price.

If the Transaction is not approved, the Company may need to source alternative funding arrangements for any acquisition opportunities. There can be no guarantee that alternative funding will be available to the Company, or, if available, that it will be offered on terms that are better than, or comparable to, the Facility. In fact, based on recent capital raisings announced to the ASX, and the discount required to complete the Company's last capital raising (being 21.3%), your Board expects that, if the Company was to seek alternative equity funding (that is, other than the Facility) for working capital or further acquisitions, such funding would likely need to be on terms less attractive than the Facility and correspondingly more dilutive to existing shareholder value.

5. Potential for a strengthened Board

If any Convertible Notes are issued, Glencore will have the right to request that the Company appoint to the Board at least three persons nominated by Glencore, such that those persons comprise one third of the aggregate number of Directors (excluding independent and non-executive Directors). Ironbark believes that this has the potential to add value to the Board by bringing in a significant depth of experience in the financing, development and operation of major base metal assets.

6. The majority of your Board supports the Transaction

The majority of your Board fully supports the Transaction, other than Mr Kelly (who is a nominee of Glencore and has decided not to express a view in respect of the Transaction) and Mr McMillan (who has decided not to express a view in respect of the Transaction for the reasons set out in section 2.4 below).

2.2 The Independent Expert has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders

The Company appointed PricewaterhouseCoopers Securities Ltd the Independent Expert, to prepare an independent assessment of the Transaction. The Independent Expert has concluded that the Transaction is not fair but is reasonable for non-associated Shareholders.

A copy of the Independent Expert's Report is contained in Annexure E.

2.3 The majority of your Board fully supports the Transaction

The Board has carefully considered the Transaction. The majority of your Board believes it to be the best option available to the Company and its Shareholders. Your Directors that hold shares intend to vote in favour of Resolutions 1 and 2 at the General Meeting.

The majority of your Board recommends that Shareholders **VOTE IN FAVOUR** of Resolutions 1 and 2, other than Mr Kelly (who is a nominee of Glencore and has decided not to make a recommendation) and Mr McMillan (who has decided not to make a recommendation for the reasons set out in section 2.4 below).

As at the date of this Explanatory Memorandum, no competing or superior proposal had been received by the Board or is currently under consideration by the Board. The Board is also not aware of any other offer or proposal which might be made as an alternative to the Transaction. Should such a proposal arise, the Board will reconsider its recommendation and inform you accordingly.

2.4 Mr McMillan's position

Mr McMillan has decided not to make a recommendation to Shareholders in respect of the Transaction.

Mr McMillan is an affiliate of Nyrstar, the Company's largest Shareholder. Nyrstar has informed Mr McMillan and the Company that it presently intends to abstain from voting on Resolutions 1 and 2 in order to allow minority Shareholders to determine whether or not the Transaction proceeds. In these circumstances, given his affiliation with Nyrstar and its objective as stated above, Mr McMillan does not consider it appropriate for him to make a recommendation that Shareholders vote either for or against the Resolutions.

3. POSSIBLE DISADVANTAGES OF THE TRANSACTION

3.1 Dilution of existing Shareholders' interests

If Convertible Notes are issued to Glencore upon draw down of the Facility, and the Convertible Notes are converted into Shares in accordance with their terms, there will be a dilution (potentially significant) of the current holdings of Shareholders. In addition, Glencore may substantially increase its potential maximum voting power in the Company.

The level of Glencore's increased shareholding and maximum voting power will ultimately depend on:

- (a) the extent to which the Company draws down under the Facility, and therefore the value of the Convertible Notes issued to Glencore;
- (b) the extent to which the Convertible Notes are converted into Shares and not repaid in cash;
- (c) the Conversion Price for the Convertible Notes (as adjusted in accordance with the terms of the Notes Subscription Documents);
- (d) the A\$:US\$ exchange rate at the time the Convertible Notes are converted into Shares;
- (e) the number of Shares on issue at the time the Convertible Notes are converted into Shares; and
- (f) the number of Shares held by Glencore at the time the Convertible Notes are converted into Shares.

By way of illustration, if the Facility is drawn down by the Company for the full US\$50 million, and all Convertible Notes are converted for Shares, the maximum number of Shares that will be issued by the Company to Glencore under the following exchange rate scenarios will be as follows:

A\$:US\$ exchange rate	Maximum Shares that will be issued to Glencore	Voting power (approximate) ¹	Voting power (approximate, Fully Diluted Basis) ¹
1.1	101,298,700	30.96%	30.30%
1.0	111,428,571	32.42%	31.74%
0.9	123,809,523	34.12%	33.42%
0.6	185,714,285	41.48%	40.72%

Notes:

1. This figure is for illustrative purposes only and includes the relevant interest of 11.974% (11.650% on a Fully Diluted Basis) Glencore already has in the Company.

2. Based on 368,392,667 Shares on issue as at 15 November 2011. The number of Shares on issue at the time the Convertible Notes are converted into Shares may differ to the number of Shares on issue as at 15 November 2011.

Details of the potential capital structure of the Company, and Glencore's potential holding of Shares, as a result of the issue of the Convertible Notes and their potential conversion, are set out in section 8.4 below.

3.2 Glencore may have potential to significantly influence the Company's operations

If any Convertible Notes are issued, Glencore will have the right to request that the Company appoint to the Board at least three persons nominated by Glencore such that those persons comprise one third of the aggregate number of Directors (excluding independent and non-executive Directors). The appointment of additional representatives to the Board would put Glencore in a position to exercise significant influence on the operations of the Company.

In addition, if any Convertible Notes issued to Glencore are converted into Shares in accordance with their terms, Glencore's voting power in the Company will increase (see section 3.1 above).

3.3 Nyrstar's Non-dilute Right

On 27 November 2009, Shareholders approved two related issues of Shares to Nyrstar. As disclosed at the time, and pursuant to a waiver of ASX Listing Rule 6.18 obtained by the Company on 2 October 2009, Nyrstar was granted the Nyrstar Non-dilute Right, to allow it to maintain the interest in the Company it had obtained through these issues of Shares.

On 31 May 2010, Shareholders approved an additional issue of Shares to Nyrstar, as part of a funding arrangement. A second waiver of ASX Listing Rule 6.18 was granted on 21 April 2010, so as to permit the Company to extend the Nyrstar Non-dilute Right to the increased interest that Nyrstar then held in the Company.

As at the date of this Notice, Nyrstar's interest in the Company is approximately 26.52%.

If Glencore is issued with any Shares on conversion of either Tranche 1 Convertible Notes or Tranche 2 Convertible Notes, the Nyrstar Non-dilute Right will allow Nyrstar to elect to subscribe for such number of Shares as would allow it to maintain the voting power in the Company it held immediately before the issue of Shares to Glencore.

In respect of the effect of the Nyrstar Non-dilute Right on the Company's capital structure and control, the Company highlights the following:

- (a) Nyrstar is not obliged to exercise the Nyrstar Non-dilute Right, but may do so at its discretion;
- (b) if Nyrstar exercises the Nyrstar Non-dilute Right in respect of an issue of Shares to Glencore, the number of Shares to be issued to Nyrstar will depend on (i) Nyrstar's voting power immediately prior to that issue, and (ii) the number of Shares issued to Glencore under that issue;
- (c) any issue of Shares to Nyrstar on an exercise of the Nyrstar Non-dilute Right will be on equivalent terms in all respects as the issue to Glencore in respect of which the right is exercised; and
- (d) the Independent Expert has considered the impact of the Nyrstar Non-dilute Right, and taken it into account in giving its opinion on the Transaction. Shareholders are strongly encouraged to read the Independent Expert's Report (set out in full in Annexure E).

4. CONSEQUENCES FOR THE COMPANY IF THE TRANSACTION IS NOT APPROVED OR THE TRANSACTION DOES NOT OTHERWISE PROCEED

The majority of your Board considers that the Transaction (if approved) would represent an excellent outcome for the Shareholders. Mr Kelly, who is a nominee of Glencore, does not express a view in respect of the Transaction. Mr McMillan does not express a view in respect of the Transaction, for the reasons set out in section 2.4 above.

If Resolutions 1 and 2 are not approved, or the Transaction does not proceed for any reason, the majority of the Board (other than Mr Kelly and Mr McMillan) considers that there will be an opportunity cost for the Shareholders as a result of the Company not having access to the Facility. However, if Resolutions 1 and 2 are not approved, or the Transaction does not proceed for any reason, the Company will continue to operate as it did before proposing the Transaction.

4.1 The Company may not be able to proceed as effectively with its planned corporate development

The Company requires access to significant funding to pursue growth opportunities that are consistent with its strategy of becoming a leading international base metals company. If the Transaction is not approved, or does not proceed for any reason, the Company may need to seek alternative opportunities with other parties to proceed with its planned strategy.

4.2 The Company may need to source alternative funding arrangements to progress acquisition opportunities

There can be no guarantee that alternative funding for acquisitions will be available to the Company, or, if available, that it will be offered on terms that are better than, or comparable to, the Facility.

5. OVERVIEW OF GLENCORE

The main counterparty to the Transaction is Glencore International AG, a company incorporated under the laws of Switzerland. Glencore Finance (Bermuda) Limited is a wholly owned subsidiary of Glencore International AG (which is itself a wholly owned subsidiary of Glencore International plc), and is the counterparty to the Notes Subscription Agreement.

Glencore, headquartered in Baar, Switzerland, was founded in 1974 and is one of the world's leading integrated producers and marketers of commodities, with a multi-billion dollar market capitalisation. Glencore has worldwide activities in the production, sourcing, processing, refining, transporting, storage, financing and supply of metals and minerals, energy products and agricultural products. Glencore International plc became a publicly traded company in May 2011, with a primary listing on the London Stock Exchange and secondary listing on the Hong Kong Stock Exchange. Glencore's initial public offering was the largest in the history of the premium listing segment of the London Stock Exchange.

Over 2,700 people work in Glencore's marketing operations, while Glencore's industrial operations directly or indirectly employ over 54,800 people in 30 countries. On a consolidated basis, turnover for the year ended 31 December 2010 was US\$145 billion. Total assets were US\$79.8 billion and total Glencore shareholders' funds were US\$19.6 billion at 31 December 2010.

Further information regarding Glencore's directors, management, operations and financial position can be found at <http://www.glencore.com>.

6. OVERVIEW OF IRONBARK

6.1 History

The Company was incorporated in March 2006, and listed on the ASX (ASX: IBG) in August 2006.

6.2 Key assets

The Company's key focus is its 100% owned Citronen base metal deposit in Northern Greenland that currently hosts in excess of 11 billion pounds of zinc and lead (the current JORC compliant resource for Citronen is detailed below in section 6.3).

The Company currently remains focused on the progression and optimisation of the Feasibility Study of the Citronen Project as a major base metal mine. Work is ongoing at an urgent pace and the results of the Feasibility Study will be delivered as soon as they are complete.

In addition to the Citronen Project, the Company is undertaking exploration work in Greenland at its 100% owned Mestersvig project, and at its projects in New South Wales, Australia.

6.3 Mineral Resources and Ore Reserves

The Citronen Project currently hosts 11.8 billion pounds of zinc (Zn) and lead (Pb). The JORC compliant resource estimate is:

59.9 million tonnes at 5.9% zinc (Zn) + lead (Pb)

Resource Category	Mt	Zn %	Pb %	Zn+Pb%
Measured	15.0	5.8	0.5	6.3
Indicated	19.3	5.1	0.6	5.7
Inferred	25.5	5.3	0.5	5.8
Total	59.9	5.3	0.5	5.9

Using inverse distance squared (ID^2) interpolation and reported at a 3.0% Zn cut-off

Within a larger global resource of:

132.6 million tonnes at 4.0% zinc (Zn) + lead (Pb)

Resource Category	Mt	Zn %	Pb %	Zn+Pb%
Measured	33.2	3.8	0.5	4.2
Indicated	52.2	3.7	0.5	4.2
Inferred	47.2	3.3	0.4	3.7
Total	132.6	3.6	0.5	4.0

Using Ordinary Kriging interpolation and reported at a 2% Zn cut-off

6.4 Strategy

The Company's strategy is to become a leading international base metals company. The Company seeks to build shareholder value through exploration and development of its projects and by actively expanding its project base. The management and Board of the Company have extensive technical and corporate experience in the minerals sector to position them well to pursue this strategy.

6.5 Current Directors

As at the date of this Explanatory Memorandum, the Company's Directors are:

- Peter Duncombe Bennetto - Non Executive Chairman.
- Jonathan Charles Downes - Managing Director.
- Adrian Paul Byass - Executive Technical Director.
- Gregory Clyde Campbell - Executive Director.
- John McConnell - Non Executive Director.
- David Kelly - Non Executive Director (representative of Glencore).
- Greg McMillan - Non Executive Director.

6.6 Current capital structure

The following sets out the capital structure of the Company as at the date of this Explanatory Memorandum:

Securities on issue	Number
Shares	368,392,667
Options exercisable at \$0.45 on or before 16 November 2013	9,050,000
Options exercisable at \$0.35 on or before 16 November 2013	500,000

Options exercisable at \$0.85 on or before 22 November 2012 500,000

Options exercisable at \$0.20 on or before 26 November 2012 200,000

6.7 Top 20 Shareholders

The top 20 Shareholders of the Company as at the last trading day before the date of this Explanatory Memorandum are shown in the table below:

Shareholders	Shares	Relevant interest % (approximate)
NYRSTAR INTNL BV	97,690,702	26.52%
SINGPAC INV HLDG PTE LTD*	29,610,593	8.04%
HSBC CUSTODY NOM AUST LTD	19,792,713	5.37%
NATIONAL NOM LTD	17,639,664	4.79%
BEDFORD RES HLDGS LTD	15,112,794	4.10%
COGENT NOM PL	15,007,942	4.07%
SINGPAC INV HLDG PTE LTD*	12,500,000	3.39%
UBS WEALTH MGNT AUST NOM	8,056,393	2.19%
CITICORP NOM PL	7,457,398	2.02%
HSBC CUSTODY NOM AUST LTD	7,073,789	1.92%
J P MORGAN NOM AUST LTD	6,999,814	1.90%
DOWNES JONATHAN CHARLES	5,360,000	1.45%
BYASS ADRIAN	5,012,500	1.36%
SUGAR EDDIE	5,000,000	1.36%
VALIANT EQUITY MGNT PL	4,505,000	1.22%
PYLARA PL	3,750,000	1.02%
KALE CAP CORP LTD	3,735,000	1.01%
LUJETA PL	3,000,000	0.81%
SINCERE LIBERTY FINANCE L	2,800,000	0.76%
DOWNES KATRINA	2,500,000	0.68%

** Together with an additional holding of 2,000,000 Shares, these holdings comprise Glencore's relevant interest in the Company of approximately 11.97%*

7. IMPACT ON THE COMPANY'S FINANCIAL POSITION

7.1 Introduction

Set out below is a pro forma consolidated balance sheet for the Company (unaudited) as at 30 June 2011, assuming the Transaction had occurred at that date in the form described in the following scenarios:

Scenario 1 Assumes only Tranche 1 of the Convertible Notes are drawn down by the Company, and no conversion of the Convertible Notes into Shares has occurred.

Scenario 2 Assumes both Tranche 1 and Tranche 2 of the Convertible Notes are drawn down by the Company and no conversion of the Convertible Notes into Shares has occurred.

7.2 Pro forma balance sheet

The pro forma balance sheet set out below has been prepared in accordance with the Australian Accounting Standards and the Corporations Act. Australian Accounting Standards include Australian equivalents to International Financial Reporting Standards (AIFRS). This financial information also complies with International Financial Reporting Standards issued by the International Accounting Standards Board. The pro forma financial information is presented in an abbreviated format and does not contain all the disclosure that is usually provided in financial statements prepared in accordance with the presentation and disclosure requirements of AIFRS and the Corporations Act.

	Ironbark Zinc Limited Audited 30-Jun-11 \$'000	Proforma – Post Issue of Tranche 1 Unaudited Proforma 30-Jun-11 \$'000	Proforma – Post Issue of Tranche 2 Unaudited Proforma 30-Jun-11 \$'000
CURRENT ASSETS			
Cash and cash equivalents	12,361	42,361*	62,361*
Trade and other receivables	212	212	212
Other current assets	1,942	1,942	1,942
TOTAL CURRENT ASSETS	14,515	44,515	64,515
NON-CURRENT ASSETS			
Plant and equipment	63	63	63
Exploration and evaluation expenditure	137,646	137,646	137,646
Financial assets	1,000	1,000	1,000
TOTAL NON-CURRENT ASSETS	138,709	138,709	138,709
TOTAL ASSETS	153,224	183,224	203,224
CURRENT LIABILITIES			
Trade and other payables	1,241	1,241	1,241

Short term provisions	100	100	100
TOTAL CURRENT LIABILITIES	1,341	1,341	1,341
NON-CURRENT LIABILITIES			
Borrowings	-	30,000	50,000
Deferred tax liabilities	135	135	135
TOTAL NON-CURRENT LIABILITIES	135	30,135	50,135
TOTAL LIABILITIES	1,476	31,476	51,476
NET ASSETS	151,748	151,748	151,748
EQUITY			
Issued capital	107,680	107,680	107,680
Reserves	49,665	49,665	49,665
Accumulated losses	(5,597)	(5,597)	(5,597)
TOTAL EQUITY	151,748	151,748	151,748

** The funds raised from the Convertible Note draw down have been reflected in cash prior to any proposed acquisition.*

7.3 Use of funds made available under the Facility

Under the Notes Subscription Documents, the US\$50 million Facility will be made available to the Company, subject to certain conditions being satisfied (these conditions are set out in section 1.4). The Company intends to only draw funds under the Facility as and when required, and intends to use funds drawn to:

- provide the cash consideration payable in respect of approved acquisitions by the Company;
- pay for the costs and expenses incurred in connection with any approved acquisition by the Company; and
- with the prior consent of Glencore, fund working capital of the Company's corporate group.

8. IMPACT ON THE COMPANY'S CAPITAL STRUCTURE AND LEVEL OF CONTROL

8.1 Current capital structure

See section 6.6 for details of the Company's current capital structure.

8.2 Potential capital structure as a result of the Transaction

As at the date of this Explanatory Memorandum, Glencore has a relevant interest in 11.974% of the Company (11.650% on a Fully Diluted Basis).

If the Transaction is approved and Resolutions 1 and 2 are passed by Shareholders, and all other conditions to the relevant agreements are satisfied, if the Company elects to draw down the Facility, Convertible Notes will be issued to Glencore.

Assuming that the Company draws down the Facility for the full US\$50 million, and **no** Convertible Notes have been converted into Shares, the capital structure of the Company

will be as follows:

Securities on issue	Number
Shares	368,392,667
Options exercisable at \$0.45 on or before 16 November 2013	9,050,000
Options exercisable at \$0.35 on or before 16 November 2013	500,000
Options exercisable at \$0.85 on or before 22 November 2012	500,000
Options exercisable at \$0.20 on or before 26 November 2012	200,000
Convertible Notes	US\$50 million

Under the terms of the Notes Subscription Documents, in certain circumstances the Convertible Notes may be converted for Shares in the Company and not repaid in cash. The capital structure of the Company if the Convertible Notes are converted into Shares and not repaid in cash, is set out below.

8.3 Conversion mechanism for Convertible Notes

The number of Shares to be issued upon conversion of a Convertible Note is determined as follows:

$$\frac{\text{Principal Amount}}{\text{Conversion Price in effect on the conversion date}}$$

Where:

Principal Amount means, in respect of each Convertible Note at any time, the outstanding principal amount of that Convertible Note converted to Australian dollars using the exchange rate prevailing three business days before the conversion date.

Conversion Price means:

- for Convertible Notes issued as Tranche 1: A\$0.42; and
- for Convertible Notes issued as Tranche 2: A\$0.50.

The Conversion Price in effect on the conversion date will be the Conversion Price, subject to any subsequent adjustment in accordance with the Notes Subscription Documents (for example, including where there is a bonus issue of Shares, or a share consolidation or share split).

8.4 Glencore's potential shareholding in the Company

The level of Glencore's shareholding will ultimately depend on:

- (a) the extent to which the Company draws down under the Facility and therefore the value of the Convertible Notes issued to Glencore;
- (b) the extent to which the Convertible Notes are converted into Shares and not repaid in cash;
- (c) the Conversion Price for the Convertible Notes (as adjusted in accordance with the terms of the Notes Subscription Documents);
- (d) the A\$:US\$ exchange rate at the time the Convertible Notes are converted into Shares;
- (e) the number of Shares on issue at the time the Convertible Notes are converted into Shares; and
- (f) the number of Shares held by Glencore at the time the Convertible Notes are converted into Shares.

The table below assumes the following:

- The Company draws down the Facility for the full US\$50 million, and therefore US\$50 million of Convertible Notes are issued to Glencore.
- All Convertible Notes are converted into Shares in accordance with their terms.
- Shareholdings on both a Fully Diluted Basis (which assumes that all Options currently on issue are exercised for Shares) and on an undiluted basis (which assumes that no Options are exercised).
- No adjustment event occurs which would result in an amendment to the conversion price of the Convertible Notes (for example, if the Company makes a bonus issue of Shares, or if there is a consolidation or subdivision of Shares).

Exchange rate risk

As the Conversion Price for the Convertible Notes is fixed in Australian dollars (A\$0.42 for Tranche 1 and A\$0.50 for Tranche 2) and the face value of the Convertible Notes is denominated in United States dollars, the Company is exposed to the risk of any movements in the A\$:US\$ exchange rate. Therefore, if the Australian dollar is weaker as against the US dollar at the time for conversion of the Convertible Notes (that is, the A\$:US\$ exchange rate decreases), more Shares will be issued upon conversion. If the Australian dollar is stronger as against the US dollar at the time for conversion of the Convertible Notes (that is, the A\$:US\$ exchange rate increases), fewer Shares will be issued upon conversion.

By way of illustration, in the table below we have assumed four exchange rate scenarios:

- Scenario 1: A\$:US\$ of 1.1.
- Scenario 2: A\$:US\$ of 1.0.
- Scenario 3: A\$:US\$ of 0.9.
- Scenario 4: A\$:US\$ of 0.6.

Whilst we consider Scenario 4 unlikely, the Company is unable to predict what the A\$:US\$ exchange rate will be at the time of conversion of the Convertible Notes. Scenario 4 has therefore been included to provide Shareholders with an illustration of the potential effect that a significant decline in the A\$:US\$ exchange rate would have on Glencore's potential future shareholding in the Company.

For the avoidance of doubt, none of these scenarios represent the potential maximum number of Shares that may be issued to Glencore, nor the potential maximum voting power than Glencore may obtain.

Capital structure	Scenario 1 (A\$:US\$ 1.10)	Scenario 2 (A\$:US\$ 1.0)	Scenario 3 (A\$:US\$ 0.90)	Scenario 4 (A\$:US\$ 0.60)
Current Shares on issue	368,392,667	368,392,667	368,392,667	368,392,667
Options	10,250,000	10,250,000	10,250,000	10,250,000
Fully diluted shares on issue	378,642,667	378,642,667	378,642,667	378,642,667
Maximum Shares issued upon conversion of Tranche 1	64,935,064	71,428,571	79,365,079	119,047,619
Maximum Shares issued upon conversion of Tranche 2	36,363,636	40,000,000	44,444,444	66,666,666
Total Shares on issue following conversion of Tranche 1 and Tranche 2 (undiluted)	469,691,367	479,821,238	492,202,190	554,106,952
Total Shares on issue following conversion of Tranche 1 and Tranche 2 (fully diluted)	479,941,367	490,071,238	502,452,190	564,356,952
Shares currently held by Glencore	44,110,593	44,110,593	44,110,593	44,110,593
Shares held by Glencore following conversion of Tranche 1	109,045,657	115,539,164	123,475,672	163,158,212
Shares held by Glencore following conversion of Tranche 1 and Tranche 2	145,409,293	155,539,164	167,920,116	229,824,878
Total % shareholding by Glencore (undiluted)	30.96%	32.42%	34.12%	41.48%
Total % shareholding by Glencore (fully diluted)	30.30%	31.74%	33.42%	40.72%

8.5 Nyrstar's Non-dilute Right

If Glencore is issued with any Shares on conversion of either Tranche 1 Convertible Notes or Tranche 2 Convertible Notes, the Nyrstar Non-dilute Right will allow Nyrstar (at its discretion) to subscribe for such number of Shares as would allow it to maintain the voting

power in the Company it held immediately before the issue of Shares to Glencore (please see section 3.3 above).

The Independent Expert has considered, and taken into account in forming its opinion on the Transaction, the impact of the Nyrstar Non-dilute Right. Shareholders are strongly encouraged to read the Independent Expert's Report (set out in full in Annexure E).

8.6 Impact of the Transaction on Options

The Transaction (if it proceeds) will have no direct or immediate effect on the Options currently on issue.

8.7 Impact on the status of the Company under the Foreign Acquisitions and Takeovers Act 1975 (Cth)

Under the *Foreign Acquisitions and Takeovers Act 1975* (Cth) (**FATA**), the Australian Federal Treasurer has the power to block transactions that are subject to the FATA and which would result in a foreign person acquiring control of an Australian corporation or business or an interest in real estate, where that transaction is determined to be contrary to the national interest.

The Federal Treasurer's powers include prohibiting a person proposing to acquire shares or assets of an Australian corporation or business from doing so, if as a result of the acquisition, one or more foreign persons would gain control of the Australian corporation or business and the result would be contrary to the national interest. The prohibition applies to corporations with total assets of more than \$231 million or where the proposal values the business at more than \$231 million. If the person has already acquired the shares or assets, the Federal Treasurer may order that the shares or assets be disposed of to an approved person.

The Company is already considered to be "foreign person" under the FATA as it is a corporation in which a foreign corporation holds more than a 15% interest. As a foreign person, the Company is required to give notice under the FATA as a pre-condition to it, or any of its subsidiaries, acquiring more than 15% of the shares in an Australian corporation with total assets of more than \$231 million.

Glencore itself is a foreign corporation, and the Company will continue to be considered a "foreign person" under the FATA following completion of the Transaction.

9. IMPACT AND BENEFITS FOR DIRECTORS AND MANAGEMENT

9.1 Retention of management and structure

Glencore is supportive of the current management of the Company and, if both Resolution 1 and Resolution 2 are passed and the Transaction proceeds, Glencore intends to retain in full the current management of the Company, subject to the revised composition of the Board set out in section 9.3 below.

9.2 Proposed benefits to management

No Director will obtain any benefit from the Transaction, except in their respective capacities as Shareholders. Mr Kelly was nominated to the Board by Glencore. He abstained from voting on the Board resolutions approving the Transaction and has decided to abstain from expressing a view on the Transaction or making a recommendation to Shareholders in respect of Resolutions 1 and 2.

9.3 Nomination rights and composition of the Board

Pursuant to the terms of the Notes Subscription Agreement, within 10 business days after the first issue of Convertible Notes, the Company must procure that at least three persons nominated by Glencore are appointed to the Board such that those persons comprise one third of the aggregate number of Directors on the Board (not including independent and non-executive Directors). The Company will procure that this remains the case for so long as (and only so long as) any Convertible Notes remain outstanding.

If Glencore ceases to hold any Convertible Notes, Glencore will procure that any Directors nominated by it pursuant to clause 2.5 of the Notes Subscription Agreement will promptly tender their resignation as a Director.

The terms of appointment of the Glencore nominees to the Board will be on terms satisfactory to Glencore (acting reasonably), but otherwise in accordance with the Company's constitution and the law.

9.4 Proposed new Directors

Glencore has made no decision yet regarding the identity or appointment of nominees to the Board if the Transaction is successful, and will make such decision once the Facility has been drawn down on.

Glencore's current intention is for such nominees to be Glencore employees or executives with appropriate expertise and experience in the business conducted by the Company at the time they are nominated to the Board.

9.5 Corporate governance and Board independence

Glencore and the nominee directors set out in section 9.4 above must comply with all applicable laws and the Listing Rules in relation to any dealings between the Company and Glencore, including:

- (a) seeking Shareholder approval for any transactions between the Company and Glencore (or its associates) where required by any applicable law or the Listing Rules (for example, approval of the agreements the subject of Resolution 2);
- (b) complying with applicable laws relating to conflicts of interest for directors and directors' exclusion from voting in relation to matters considered by the Board (including the exclusion of Glencore's nominee directors in any matters that relate to disputes between the parties); and
- (c) in the case of Glencore's nominee directors, complying with their legal obligations to act in good faith, in the best interests of the Company and for proper purposes, and to have regard to the interests of Shareholders and the Company as a whole.

10. INTENTIONS OF GLENCORE

This section sets out Glencore's intentions, on the basis of the facts and information concerning the Company which are known to it and the existing circumstances affecting the business of the Company, in relation to the following:

- the continuation of the business of the Company;
- any major changes to be made to the business of the Company, including any redeployment of the fixed assets of the Company; and
- the future employment of the present employees of the Company.

The primary intention of Glencore is to maximise the value of the Company for all Shareholders over the long term.

10.1 Review

Glencore and its advisers have reviewed certain information that has been publicly released on the Company, its current activities and its plans for the future, and had limited discussions with the Company in relation to its businesses. This has supplemented the information about the Company that Glencore has otherwise previously had access to.

However, Glencore does not necessarily have knowledge of all material information, facts and circumstances that are necessary to assess the operational, commercial, taxation and financial implications of its current intentions. Consequently, final decisions on all of these matters have not been made, and any decisions already made may be subject to change.

Once the Transaction completes and additional Glencore nominees are appointed to the Board (assuming drawdown of the Convertible Notes), Glencore may, to the extent that information is available to it, conduct a review of the operations, assets, structure and employees of the Company in light of that information. Final decisions will only be reached after that review and in light of all material facts and circumstances. As such, statements referred to in this section are statements of current intention only which may change as new information becomes available or circumstances change. The statements referred to in this section 10 should be read in this context.

10.2 Intentions

If Resolutions 1 and 2 are approved by Shareholders, and the Transaction is successful, the Company will have access to funds of up to US\$50 million as part of the Facility. This will put the Company in a strong position to pursue future growth, in line with its objective of building a leading international base metals company. With this in mind, Glencore's current intentions (if the Transaction is approved and successful) are for the Company to increase its focus on growth, and seek out acquisition opportunities that are well placed to assist the Company in pursuing its strategy of becoming a leading international base metals company.

Except for the changes and intentions referred to in this section 10 and elsewhere in this Explanatory Memorandum, Glencore intends, based on the information presently known to it:

- to continue the business of the Company as it is currently conducted;
- not to make any major changes to the business of the Company or the deployment of the Company's assets;
- not to inject further capital into the Company (except under the Facility);
- not to transfer any Company property between the Company and Glencore or any person associated with Glencore;
- to request that the Company appoint Glencore's nominated persons to its Board, if any Convertible Notes are issued (please see section 9.3);
- to continue the employment of the Company's existing employees; and
- not to interfere with the Company maintaining a strong board that operates independently of, and separately to, Glencore.

11. INDEPENDENT EXPERT'S REPORT

In order to assist Shareholders to assess the Transaction and consider whether to vote in favour of Resolutions 1 and 2, the Company appointed PricewaterhouseCoopers Securities Ltd, the Independent Expert, to prepare an Independent Expert's Report. The purpose of the report is to state whether or not, in the Independent Expert's opinion, the Transaction is fair and reasonable to Shareholders not associated with the Transaction.

The Independent Expert has concluded that the Transaction is not fair but is reasonable to non-associated Shareholders.

Set out below is a brief summary of the Independent Expert's conclusions. Shareholders are strongly encouraged to read the Independent Expert's Report in full. A copy of the Independent Expert's Report is included in Annexure E to this Notice.

11.1 Meaning of "fair" and "reasonable"

According to ASIC guidance, in the context of an issue of securities, an allotment of securities is "fair" if the value of the consideration is equal to or greater than the value of the securities the subject of the allotment. This comparison should be made assuming 100% ownership of the company and irrespective of whether the consideration is scrip or cash.

An allotment of securities is "reasonable" if it is fair. However, it might also be "reasonable" if, despite being "not fair", the expert believes that there are sufficient reasons for security holders to accept the allotment of securities.

11.2 Basis of the Independent Expert's opinion

(a) The Transaction is "not fair" to non-associated Shareholders

The Independent Expert concluded that the Transaction is "not fair" to non-associated Shareholders, because the consideration payable by Glencore is lower than the Independent Expert's assessed value for Shares on a controlling interest basis.

The Independent Expert's assessment of the fairness of the Transaction is based on a number of assumptions. Again, shareholders are strongly encouraged to read the Independent Expert's Report (set out in Annexure E) in full.

(b) The Transaction is "reasonable" to non-associated shareholders

The Independent Expert concluded that the Transaction is "reasonable" to non-associated Shareholders, despite being "not fair".

In coming to this view, the Independent Expert considered the advantages and disadvantages of the Transaction, and other significant factors, which are set out in summary form only below.

The advantages identified by the Independent Expert are:

- (i) access to the Facility provides added flexibility for the Directors to pursue potential acquisition opportunities where a cash consideration component is required; and
- (ii) Tranche 1 is favourably priced for the Company and the extent of the drawdown of the Facility (including any utilisation of Tranche 2) is under the control of the Directors.

The disadvantages identified by the Independent Expert are:

- (iii) the Transaction will reduce the level of uncommitted production from the Citronen Project to 10%, if the Facility is utilised. This will limit the ability of the Company to offer offtake rights to any other party which may be willing to offer development funding for the Citronen Project as part of a wider arrangement to secure offtake;
- (iv) the extension of the conversion rights established under the Transaction to Nyrstar under its existing non-dilute agreement (ie pursuant to the Nyrstar Non-dilute right) is value decreative to Shareholders;
- (v) reduced prospect of a future control transaction for Shares;
- (vi) increased level of influence of major shareholders; and
- (vii) potential exposure to repay Convertible Notes.

The other factors the Independent Expert considered are:

- (viii) relationship with a major global base metals trader; and
- (ix) alternative sources of finance.

The Independent Expert's assessment of the reasonableness of the Transaction is based on a number of assumptions. Shareholders are strongly encouraged to read the Independent Expert's Report (set out in Annexure E) in full.

12. DIRECTORS' RECOMMENDATION

The majority of your Board fully supports the Transaction and recommends that:

- Shareholders **VOTE IN FAVOUR** of Resolution 1; and
- Shareholders **VOTE IN FAVOUR** of Resolution 2,

for the reasons set out in section 2 above.

Mr David Kelly is a nominee of Glencore, and so **DOES NOT MAKE A RECOMMENDATION** to Shareholders in respect of both Resolution 1 and Resolution 2.

Mr McMillan **DOES NOT MAKE A RECOMMENDATION** to Shareholders in respect of both Resolution 1 and Resolution 2. Mr McMillan is an affiliate of Nyrstar, the Company's largest Shareholder. Nyrstar has informed Mr McMillan and the Company that it presently intends to abstain from voting on Resolutions 1 and 2 in order to allow minority Shareholders to determine whether or not the Transaction proceeds. In these circumstances, given his affiliation with Nyrstar and its objective as stated above, Mr McMillan does not consider it appropriate for him to make a recommendation that Shareholders vote either for or against the Resolutions.

12.1 Directors' interests in Shares and Options

As at the date of this Explanatory Memorandum, the interests of the Directors in Shares and Options are as follows:

Director	Security	Number directly held	Number indirectly held
Peter Bennetto	Shares	50,000	224,000
	Options	1,000,000	–
Jonathan Downes	Shares	5,635,000	2,750,000
	Options	2,000,000	–
Adrian Byass	Shares	–	10,455,454
	Options	1,500,000	–
Gregory Campbell	Shares	–	1,500,000
	Options	2,500,000	–
John McConnell	Shares	80,000	–
	Options	700,000	–
David Kelly	Shares	–	–
	Options	–	–
Greg McMillan	Shares	–	–
	Options	–	–

12.2 Directors' intentions regarding Resolution 1 and Resolution 2

Each of the Directors who holds Shares (directly or indirectly) in the Company intends to vote their Shares in FAVOUR of both Resolution 1 and Resolution 2.

13. ADDITIONAL INFORMATION – RESOLUTION 1

13.1 Regulatory requirements for Resolution 1

Section 606(1) of the Corporations Act provides that a person must not (without an available exemption under the Corporations Act) acquire a relevant interest in issued voting shares of a listed company if the person acquiring the interest does so through a transaction in relation to the securities entered into by or on behalf of the person and, because of the transaction, that person's or someone else's voting power in the listed company increases:

- from 20% or below to more than 20%; or
- from a starting point that is above 20% and below 90%.

Under section 608(1) of the Corporations Act, a person has a relevant interest in securities if they are the holder of the securities, have power to exercise, or control the exercise of, a right to vote attached to the securities or have power to dispose of, or control the exercise of a power to dispose of, the securities. It does not matter how remote the relevant interest

is, or how it arises. If two or more people can jointly exercise one of these powers, each of them is taken to have that power.

As mentioned above, Glencore has a relevant interest of approximately 11.974% in the Company. As a consequence of this, and the potential for Glencore to acquire voting power of more than 20% in the Company upon conversion of the Convertible Notes to shares, the issue of the Convertible Notes (and the issue of any Shares upon conversion of the Convertible Notes) needs to fall within a relevant exemption from the prohibition on exceeding the 20% limit (set out above).

13.2 Section 611, item 7 approval

An exemption for the issue of the Convertible Notes (and the issue of any Shares upon conversion of the Convertible Notes) is available under item 7 of section 611 of the Corporations Act.

This section broadly provides that an acquisition approved previously by a resolution passed at a general meeting of the company in which the acquisition is made is exempt from the prohibition in section 606(1), if:

- no votes are cast in favour of the resolution by:
 - the person proposing to make the acquisition and their associates; or
 - the persons (if any) from whom the acquisition is to be made and their associates; and
- the members of the company were given all information known to the person proposing to make the acquisition or their associates, or known to the company, that was material to the decision on how to vote on the resolution, including:
 - the identity of the person proposing to make the acquisition and their associates;
 - the maximum extent of the increase in that person's voting power in the company that would result from the acquisition;
 - the voting power that person would have as a result of the acquisition;
 - the maximum extent of the increase in the voting power of each of that person's associates that would result from the acquisition; and
 - the voting power that each of that person's associates would have as a result of the acquisition.

The Notice of Meeting includes a voting prohibition statement restricting Glencore and each of its associates from voting on Resolution 1. The information required under item 7 of section 611 of the Corporations Act is also set out below.

The voting power of a person in a body corporate is determined in accordance with section 610 of the Corporations Act. The calculation of a person's voting power in a company involves determining the voting shares in the company in which the person, and the person's associates, have a relevant interest.

An "associate" of a company includes (among others):

- a body corporate that controls the company or a body corporate controlled by the company;

- a person with whom the company has, or proposes to enter into, a relevant agreement for the purposes of controlling or influencing the composition of the company's board or the conduct of the company's affairs; and
- a person who is acting or proposing to act in concert in relation to the company's affairs.

Resolution 1 seeks Shareholder approval for the purposes of item 7 of section 611 of the Corporations Act for the issue of the Convertible Notes, and the issue of Shares upon conversion of the Convertible Notes, to be issued to Glencore. The following information is provided to Shareholders:

(a) *The identity of the person proposing to make the acquisition and their associates*

The Convertible Notes, and any Shares issued upon conversion of the Convertible Notes, being issued pursuant to Resolution 1, are being issued to Glencore Finance (Bermuda) Limited (a wholly owned subsidiary of Glencore International AG, which is itself a wholly owned subsidiary of Glencore International plc).

See section 5 for further information about Glencore.

(b) *The maximum extent of the increase in that person's voting power in the company and the voting power that would result from the acquisition*

As set out in section 13.1 above, Glencore currently has voting power of 11.974% in the Company (11.650% on a Fully Diluted Basis, which assumes that all Options currently on issue are exercised or converted into Shares). The increase in Glencore's voting power from this initial point will ultimately depend on:

- (i) the extent to which the Company draws down under the Facility, and therefore the value of the Convertible Notes issued to Glencore;
- (ii) the extent to which the Convertible Notes are converted into Shares and not repaid in cash;
- (iii) the Conversion Price for the Convertible Notes (as adjusted in accordance with the terms of the Notes Subscription Documents);
- (iv) the A\$:US\$ exchange rate at the time the Convertible Notes are converted into Shares;
- (v) the number of Shares on issue at the time the Convertible Notes are converted into Shares; and
- (vi) the number of Shares held by Glencore at the time the Convertible Notes are converted into Shares.

For illustrative purposes, various scenarios have been included in section 8.2.

For further details, see sections 3.1 and 8.2.

(c) *The maximum extent of the increase in the voting power of each of that person's associates and the voting power that would result from the acquisition*

The maximum extent of each of Glencore's associates increase in voting power, and its voting power, will be equivalent to the increase in voting power held by Glencore. For further details of the potential voting power of Glencore, see

sections 3.1 and 8.2. Singpac Investment Holdings Pte Limited and Glencore Finance (Bermuda) Ltd are associates of Glencore.

13.3 ASIC Regulatory Guide 74

ASIC Regulatory Guide 74 requires that the following information be provided to Shareholders to enable Shareholders to make an informed decision on Resolution 1:

(a) ***The identity of the allottee or purchaser and any person who will have a relevant interest in the shares to be allotted or purchased***

See section 13.2(a) above.

Glencore Finance (Bermuda) Ltd will be the allottee of the Convertible Notes and any Shares issued upon conversion of the Convertible Notes.

The following persons will have a relevant interest in Shares issued to Glencore Finance (Bermuda) Ltd upon conversion of the Convertible Notes:

- (i) Glencore International AG (the parent company of Glencore Finance (Bermuda) Ltd); and
- (ii) Glencore International plc (the parent company of Glencore International AG).

The Glencore entities listed above already have a relevant interest in Shares in respect of which Singpac Investment Holdings Pte Limited (an indirectly wholly owned subsidiary of Glencore International plc) is the registered holder.

(b) ***Full particulars (including the number and the percentage) of the shares in the company to which the allottee or purchaser is or will be entitled immediately before and after the proposed acquisition***

See section 13.2(b) above.

The Shares will also rank equally with existing Shares of the same class from their date of issue.

(c) ***The identity, associations (with the allottee, purchaser or vendor and with any of their associates) and qualifications of any person who it is intended will become a director if the Shareholders agree to the allotment or purchase***

See section 9.4 above.

(d) ***A statement of the allottee's or purchaser's intentions regarding the future of the company if Shareholders agree to the allotment or purchase, and in particular, any intention to change the business of the company; any intention to inject further capital into the company and if so, how, the future employment of the present employees of the company; any proposal whereby any property will be transferred between the company and the allottee, vendor or purchaser or any person associated with any of them; and any intention to otherwise redeploy the fixed assets of the company***

See section 10 above.

(e) ***Particulars of the terms of the proposed allotment or purchase and any other contract or proposed contract between the allottee and the company or vendor or any of their associates which is conditional upon, or directly or indirectly dependent on, Shareholders' agreement to the allotment or purchase***

The particulars of the Notes Subscription Documents are set out in sections 1.1 and 1.4. The particulars of the Glencore Commercial Agreement are set out in sections 1.1 and 1.3. The particulars of the Glencore Offtake Agreements are set out in sections 1.1 and 1.6. The particulars of the Glencore Global Offtake Agreements are set out in sections 1.1 and 1.7.

Further details of the Glencore Commercial Agreement, Notes Subscription Agreement and Notes Deed Poll are set out in Annexure A, Annexure B, and Annexure C, respectively.

(f) ***When the allotment is to be made or the purchase is to be completed***

The Convertible Notes will be subscribed for by, and issued to, Glencore upon receipt of a subscription request by the Company, in accordance with the terms of the Notes Subscription Documents.

A subscription request may be issued by the Company from time to time (with minimum subscriptions of US\$5 million) on or before two business days before 30 June 2015.

The Company has the right to convert a Tranche 1 Convertible Note any time during the relevant conversion period. Glencore has the right to convert a Tranche 1 or Tranche 2 Convertible Note any time during the conversion period. The conversion period is the period beginning on the date falling 18 months after the date that the first Convertible Note is issued under the Notes Subscription Documents (**issue date**), and ending on the fourth anniversary of the issue date. If a Convertible Note is to be redeemed during the conversion period, the conversion period will end ten days before the date set for redemption.

Where a Convertible Note is converted, the relevant number of Shares issued upon the conversion will be issued no earlier than five business days after the date that a conversion notice is issued.

(g) ***An explanation of the reasons for any proposed allotment***

An explanation of the rationale for the Transaction, including the issue of the Convertible Notes, is set out in section 2.

(h) ***The interests of the directors in Resolution 1***

The Directors do not have a material personal interest in the outcome of Resolution 1 other than in their capacity as Shareholders. The Directors' interests in Shares and Options are set out in section 12.1 above.

(i) ***The identity of the directors who approved or voted against the proposal to put Resolution 1 to Shareholders and the relevant information memorandum***

Mr Peter Bennetto, Mr Jonathan Downes, Mr Adrian Byass, Mr Gregory Campbell and Mr John McConnell voted to put Resolution 1, and the information contained in the Notice of Meeting and this Explanatory Memorandum, to Shareholders.

Mr David Kelly is a nominee of Glencore and decided to abstain from voting in respect of this matter.

Mr Greg McMillan voted against putting Resolution 1, and the information contained in the Notice of Meeting and this Explanatory Memorandum, to Shareholders.

(j) *The recommendation or otherwise of each director as to whether the non-associated Shareholders should agree to the acquisition, and the reasons for that recommendation or otherwise*

The Directors are in favour of the Transaction and recommend that Shareholders **VOTE IN FAVOUR** of Resolution 1 and Resolution 2, other than Mr David Kelly and Mr Greg McMillan, who **DO NOT MAKE A RECOMMENDATION** to Shareholders on either Resolution 1 or Resolution 2.

The reasons for the Directors' recommendations are set out in section 2 above.

(k) *Any intention of the acquirer to change significantly the financial or dividend policies of the company*

See section 10.2 above.

(l) *An analysis of whether the proposal is fair and reasonable when considered in the context of the interests of the Shareholders other than those involved in the proposed allotment or purchase or associated with such persons*

In accordance with ASIC Regulatory Guide 74, the Company commissioned PricewaterhouseCoopers Securities Ltd to prepare an Independent Expert's Report to assess whether the Transaction is fair and reasonable to Shareholders not associated with the Transaction.

The Independent Expert's Report concluded that the Transaction is not fair but is reasonable for non-associated Shareholders.

A copy of the Independent Expert's Report is contained in Annexure E.

Neither the Company nor the Directors are aware of any additional information not set out in this Explanatory Memorandum that would be relevant to Shareholders in deciding how to vote on Resolution 1.

13.4 Application of Listing Rule 7.1

Listing Rule 7.1 imposes a limit on the number of equity securities (eg shares or options to subscribe for shares) which a company can issue without shareholder approval. In general terms, a company may not, without prior shareholder approval, issue equity securities if the equity securities will in themselves or when aggregated with the securities issued by the company during the previous 12 months, exceed 15% of the number of fully paid ordinary shares on issue at the commencement of that 12 month period.

Listing Rule 7.2, exception 16 states that Listing Rule 7.1 does not apply to an issue of securities approved by shareholders for the purposes of item 7 of section 611 of the Corporations Act. Accordingly, Resolution 1 does not seek approval for the issue of Convertible Notes, or the issue of Shares upon conversion of the Convertible Notes, to Glencore for the purposes of Listing Rule 7.1.

13.5 Voting prohibition statement

In accordance with item 7 of section 611 of the Corporations Act, none of Glencore and its associates are permitted to vote in favour of Resolution 1.

13.6 Consents

Each of the following persons has consented in writing to being named in this Explanatory Memorandum in the form and context in which they are named, and has not withdrawn that consent as at the date of this Explanatory Memorandum:

- Glencore;
- PricewaterhouseCoopers Securities Ltd; and
- Ravensgate Minerals Industry Consultants.

PricewaterhouseCoopers Securities Ltd also consent to the inclusion of the Independent Expert's Report and references to the Independent Expert's Report in this Explanatory Memorandum, in the form and context in which they are included.

13.7 Costs of the Transaction

The Company's costs in respect of the Transaction, including advisory, legal, Independent Expert and printing costs are estimated to be approximately A\$540,000 in aggregate.

14. ADDITIONAL INFORMATION – RESOLUTION 2

14.1 Overview

Resolution 2 seeks that Shareholders approve the:

- Glencore Commercial Agreement between the Company and Glencore;
- Glencore Offtake Agreements between the Company and Glencore;
- Glencore Global Offtake Agreement; and
- grant of the Convertible Note Security to Glencore.

Entry into the Glencore Commercial Agreement, the Glencore Offtake Agreements and the Glencore Global Offtake Agreement, and granting of the Convertible Note Security, form part of the Transaction proposed between the Company and Glencore (as summarised in section 1.1).

A summary of the respective agreements are included in this Explanatory Memorandum as follows:

Agreement	Reference
Glencore Commercial Agreement	section 1.3 and Annexure A
Convertible Notes Security documents	Section 1.5 and Annexure B
Glencore Offtake Agreements	section 1.6
Glencore Global Offtake Agreement	section 1.7

14.2 Why is Shareholder approval required

Listing Rule 10.1 provides that approval of holders of an entity's ordinary securities is required where an entity proposes to dispose of or agree to dispose of a substantial asset to a second entity that is a substantial shareholder, or an Associate of a substantial shareholder, of that entity.

For these purposes:

- (a) a person is a substantial holder if the person and the person's Associates have a relevant interest, or had a relevant interest at any time in the six months before the transaction, in at least 10% of the total votes attached to an entity's voting securities;
- (b) an asset is a substantial asset if its value, or the value of the consideration for it, is 5% or more of the equity interests of the company as set out in the latest accounts of the company given to ASX under the Listing Rules; and
- (c) dispose includes granting or exercising an option, using an asset as collateral, decreasing an economic interest and disposing of part of an asset.

Glencore is a substantial holder of the Company.

The Company's accounts for the period ending 30 June 2011 (as lodged with ASX on 22 September 2011) show that its equity interests were approximately \$151.7 million, and 5% of equity interests is approximately \$7.6 million.

The asset that is being disposed of under each element of Resolution 2 is as set out below:

Item	Key "asset" being disposed
Glencore Commercial Agreement	<p>Sale of set percentage of product from the Citronen Project (pursuant to the Glencore Offtake Agreements)</p> <p>Sale of any Non-Citronen Production (pursuant to the Glencore Global Offtake Agreement) (as defined in section 1.1)</p> <p>Payment of the Marketing Fee (as defined in section 1.1)</p>
Lead Offtake Agreement	Sale of 35% of lead concentrates from the Citronen Project, increasing to 55% of product from the Citronen Project upon first draw down of the Facility
Zinc Offtake Agreement	Sale of 35% of zinc concentrates from the Citronen Project, increasing to 55% of product from the Citronen Project upon first draw down of the Facility
Glencore Global Offtake Agreement	Sale of Non-Citronen Production to Glencore (including any Non-Citronen Production not available for sale to Glencore, if it becomes available for sale to Glencore)
Convertible Note Security	<p>In accordance with the terms of the Notes Subscription Agreement:</p> <p>(a) granting security over the assets or shares acquired by the Company using funds drawn</p>

Item	Key "asset" being disposed
	<p>from the Facility;</p> <p>(b) if the Target is a company, committing the Target to becoming a guarantor under the Notes Deed Poll; and</p> <p>(c) if the Target is a company, and shares in the Target are held by a subsidiary of the Company, committing that subsidiary to becoming a guarantor under the Notes Deed Poll.</p>

In the opinion of the Company, it is likely that the value of each asset referred to in the table above would, or would likely, exceed 5% of the Company's equity interests as shown in its last consolidated financial statements.

Resolution 2 therefore seeks approval for the purposes of Listing Rule 10.1, to enable the Company to:

- enter into the Glencore Commercial Agreement, the Glencore Offtake Agreements and the Glencore Global Offtake Agreement;
- grant the Convertible Note Security; and
- in particular, dispose of the key asset referred to in the table above.

14.3 Advantages of approving Resolution 2

Approval of Resolution 2 is part of the overall Transaction being proposed between the Company and Glencore. A summary of the rationale and possible advantages of the Transaction is set out in section 2 and a summary of the possible disadvantages of the Transaction is set out in section 3.

14.4 Listing rule requirements

Under Listing Rule 10.10, the Notice of Meeting is required to contain a report on the transaction from an independent expert stating whether the transaction is fair and reasonable to holders of the Company's Shares whose votes are not to be disregarded.

The Independent Expert's Report is set out in Annexure E. The Independent Expert has concluded that the Transaction is not fair but is reasonable for Shareholders who are not associated with Glencore. Shareholders are advised to consider the Independent Expert's Report carefully before deciding how to vote on Resolution 2.

A voting exclusion statement in respect of Resolution 2 is set out in the Notice of Meeting.

14.5 Board recommendation

As set out in section 2.3, the Board has carefully considered the Transaction and the majority of the Board believes it to be the best option available to the Company and its Shareholders.

The majority of the Board recommends that Shareholders **VOTE IN FAVOUR** of Resolution 1 and 2, other than Mr Kelly (who is a nominee of Glencore and so does not make a recommendation) and Mr McMillan (who does not make a recommendation for the reasons set out in section 2.4).

15. GLOSSARY

Term	Meaning
A\$	Australian dollar.
Accession Letter	A letter from the Target or a subsidiary of the Company (whichever is applicable in the circumstances, as required by the terms of the Note Subscription Documents), whereby the Target or the subsidiary (as appropriate) accedes as a guarantor under the Notes Deed Poll.
ASIC	Australian Securities and Investments Commission.
ASIC Regulatory Guide 74	<i>ASIC Regulatory Guide 74: Acquisitions agreed to by Shareholders.</i>
Associate	Has the meaning given to that term in section 11 and sections 13 to 17 of the Corporations Act.
ASX	ASX Limited ABN 98 008 624 691 or, as the context requires, the financial market conducted by it.
Board	The board of Directors of the Company.
Citronen Project	The Company's wholly owned zinc-lead project in Northern Greenland.
Company	Ironbark Zinc Limited ABN 93 118 751 027.
Commercial Documents	The Glencore Commercial Agreement, the Glencore Global Offtake Agreement and the Glencore Offtake Agreements.
Convertible Notes	The convertible notes to be issued upon drawdown of the Facility in accordance with the terms of the Notes Subscription Documents.
Convertible Note Documents	The Note Subscription Documents, the Convertible Notes, each Convertible Note Security document and each Accession Letter.
Convertible Note Security	Has the meaning given to that term in section 14.1.
Director	A director of the Company.
Explanatory Memorandum	This explanatory memorandum accompanying, and forming part of, the Notice.
Facility	The convertible note facility of US\$50 million (comprising Tranche 1 and Tranche 2) to be provided by Glencore to the Company on the terms of the Notes Subscription Documents.
FATA	<i>The Foreign Acquisitions and Takeovers Act 1975 (Cth).</i>
Fully Diluted Basis	The basis where all convertible securities of the Company on issue (ie all Options) are assumed to be exercised or converted into Shares.
General Meeting	The general meeting of the Company the subject of the Notice of Meeting.

Term	Meaning
Glencore	Glencore International AG, a company incorporated under the laws of Switzerland (or, in the context of the Note Subscription Documents and the related security documents, Glencore Finance (Bermuda) Limited, a wholly owned subsidiary of Glencore International AG).
Glencore Commercial Agreement	Commercial Agreement dated 13 October 2011 between the Company and Glencore, a summary of which is included in section 1.3.
Glencore Global Offtake Agreement	The pro forma offtake agreement in respect of Non-Citronen production, to be entered into between the Company and Glencore, a summary of which is included in section 1.7.
Glencore Offtake Agreements	Zinc Offtake Agreement and Lead Offtake Agreement.
Independent Expert	PricewaterhouseCoopers Securities Ltd.
Independent Expert's Report	The report prepared by the Independent Expert and contained in Annexure E.
Lead Offtake Agreement	The offtake agreement in respect of Citronen Project lead production dated 13 October 2011 between the Company and Glencore, a summary of which is set out in section 1.6.
LIBOR	means the British Bankers' Association Interest Settlement Rate for the relevant currency and period displayed on page "LIBOR01" of the Reuters screen or (if that rate is not available) the arithmetic mean of the rates (rounded upwards to four decimal places) as supplied to the Company at its request quoted by any three of Barclays Bank PLC, Citibank, N.A., Deutsche Bank, The Royal Bank of Scotland plc (or any other banks agreed by Glencore and the Noteholders) to prime banks in the London interbank market at the relevant time, for the offering of deposits in US dollars and for a calendar quarter.
Listing Rules	The official listing rules of ASX as from time to time amended or waived in their application to a party.
Marketing Fee	A fee equal to 1% of total invoice value of Non-Available Production that the Company will pay to Glencore under the terms of the Glencore Commercial Agreement.
Non-Available Production	Any Non-Citronen Production that is not available for offtake to Glencore.
Noteholder	The bearer of a Convertible Note.
Notes Deed Poll	Ironbark Zinc Limited - Convertible Notes Deed, to be executed by the Company on or about the date of the first issue of Convertible Notes, a summary of which is included in Annexure C.
Notes Subscription Agreement	Ironbark Zinc Limited Convertible Notes Subscription Agreement dated 13 October 2011 between the Company and Glencore Finance, a summary of which is included in Annexure B.
Notes Subscription Documents	The Notes Subscription Agreement and the Notes Deed Poll.

Term	Meaning
Non-Citronen Production	<p>Any base metal produced by the Company or any of its subsidiaries from the date of the Glencore Commercial Agreement from:</p> <ul style="list-style-type: none"> assets owned by them as at the date of the agreement (excluding the Citronen Project); and any Target.
Notice of Meeting	This notice of meeting incorporating the Explanatory Memorandum to be send to Shareholders for the purpose of convening the General Meeting.
Nyrstar	Nyrstar NV (or, in the context of Nyrstar's shareholding in the Company and the Nyrstar Non-dilute Right, its subsidiaries Nyrstar Netherlands (Holdings) BV and Nyrstar International BV).
Nyrstar Non-dilute Right	The right granted by the Company to Nyrstar, in respect of any proposed issue of Shares to a third party, for Nyrstar to be issued with such number of Shares as would enable it to maintain the voting power in the Company after the issue to the third party as it held immediately before that issue.
Option	An option to subscribe for a Share, which is on issue at the date of this Explanatory Memorandum.
Proxy Form	The proxy form attached to or accompanying the Notice.
Resolution	A resolution contained in the Notice of Meeting.
Security Interest	Any mortgage, charge, pledge, lien, assignment by way of security or other form of encumbrance or security interest including, without limitation, anything analogous to any of the foregoing under the laws of any jurisdiction.
Share	A fully paid ordinary share in the capital of the Company.
Shareholder	The holder of a Share.
Target	<p>Any target acquired or proposed to be acquired by the Company, the acquisition of which is funded (in part) by the Facility, and which can be:</p> <ul style="list-style-type: none"> an asset or assets; or shares in a company, whether listed or unlisted.
Target Acquisition	<p>The acquisition by the Company of:</p> <ul style="list-style-type: none"> shares in a Target by means of a takeover offer (where the Target is a listed company); and a Target, by means of a privately negotiated agreement (where the Target is an asset or assets other than shares in a listed company).
Target Equitable Share Mortgage	An equitable mortgage of shares in a Target by the Company (or, if the shares in the Target are held by a subsidiary of the Company, by the subsidiary) in favour of Glencore and, if shares in the Target are listed, a sponsorship agreement under which the mortgagor gives control of the shares to a CHES sponsor to support the mortgage of shares.

Term	Meaning
Target Fixed and Floating Charge	A fixed and floating charge by a Target in favour of Glencore.
Tranche 1	US\$30 million made available by Glencore to the Company by way of the Facility.
Tranche 2	US\$20 million made available by Glencore to the Company by way of the Facility.
Transaction	The proposed transaction between the Company and Glencore as described in section 1.1, conditional, among other things, on the approval of Shareholders of both Resolution 1 and Resolution 2.
US\$	United States dollar.
Zinc Offtake Agreement	The offtake agreement in respect of Citronen Project zinc production dated 13 October 2011 between the Company and Glencore, a summary of which is set out in section 1.6.

Annexure A

SUMMARY OF TERMS OF THE GLENCCORE COMMERCIAL AGREEMENT

1. DEFINITIONS IN THIS ANNEXURE

Capitalised terms used in this annexure have the same meaning as in the Notice of Meeting, unless context requires otherwise.

2. SUMMARY

The Company and Glencore entered into the Glencore Commercial Agreement on 13 October 2011. The purpose of the Glencore Commercial Agreement is for Glencore to assist the Company by providing a financing facility to the Company for the Company's investment purposes in acquiring any Target and with the prior consent of Glencore, any working capital of the Company (**Facility**). In consideration, the Company agrees to grant Glencore certain rights in respect of agency and offtake arrangements related both to the Company's current projects (subject to drawdown on the Facility) and any projects acquired through investment financed by the Facility.

3. FACILITY

The Facility is a convertible note facility of US\$50,000,000, convertible at the relevant time by Glencore or the Company (as applicable) on the terms of the Notes Subscription Agreement. The Facility will be provided in two tranches (Tranche 1 and Tranche 2), available by the issue of Convertible Notes, in accordance with the Notes Subscription Agreement.

4. THE COMPANY'S OBLIGATIONS

The Company agrees to the following:

- (a) **Glencore Offtake Agreements** – Glencore and the Company will enter into the Glencore Offtake Agreements for 35% (increasing to 55% upon first draw down of the Facility) of the production of concentrates from the Citronen Project.

The existing agency arrangement between Glencore and the Company will be deemed to have been amended so that any tonne of concentrate sold to Glencore under the Glencore Offtake Agreements will be deducted from the Quantity (as defined in the heads of agreement dated 11 April 2007 between Glencore and the Company, being the total production of zinc and lead concentrates from the Citronen Project the subject of the agency agreement);

- (b) **Glencore Global Offtake Agreement** – The Company will use its best endeavours to allocate to Glencore all offtake of any base metal produced by the Company or any of its subsidiaries from the date of the Glencore Commercial Agreement from assets owned by them as at the date of the agreement (excluding the Citronen Project) and from the Target (**Non-Citronen Production**) that is available for sale¹. Non-Citronen Production offtake will be for life of mine and on standard Asian benchmark terms, and in respect of base metals will be on the terms of the Glencore Global Offtake Agreement; and

- (c) **Marketing Fee** – if any Non-Citronen Production is not available for sale to Glencore, including at the time of acquisition of a Target (**Non-Available Production**), then:

- (i) the Company will pay Glencore a fee equal to 1% of total invoice value of that Non-Available Production (**Marketing Fee**);

¹ Product is "available for sale" unless: (i) it is already subject to existing offtake, agency or marketing arrangements; or (ii) another person already has an interest in it.

6. GENERAL

The Glencore Commercial Agreement contains representations and warranties by both parties that are considered standard in the circumstances

- (ii) Glencore will provide any market information and other assistance to the Company as requested in respect of that Non-Available Production;
- (iii) the Company will use all reasonable endeavours to minimise the duration of any pre-existing offtake agreement (or equivalent) with parties other than Glencore (having regard to the commercial effect of minimising the duration of such offtakes); and
- (iv) if and when offtake of any Non-Available Production becomes available, then:
 - (A) such Non-Available Production will cease to be counted for the purposes of the Marketing Fee;
 - (B) if a Glencore Global Offtake Agreement exists, such Non-Available Production will be included within the scope of the Glencore Global Offtake Agreement; and
 - (C) if no Glencore Global Offtake Agreement exists, the parties will enter into a Glencore Global Offtake Agreement in respect of that Non-Available Production.

5. CONDITIONS PRECEDENT

The Company's obligations set out above are subject to the Shareholders approving the Company entering into the Glencore Commercial Agreement, the Glencore Offtake Agreements, the Glencore Global Offtake Agreement and the Notes Subscription Agreement. In addition, the Glencore Global Offtake Agreement obligation and the Marketing Fee obligation (set out at (b) and (c) above, respectively) are of no force and effect prior to the first issue of Convertible Notes under the Notes Subscription Agreement.

Annexure B

SUMMARY OF TERMS OF THE NOTES SUBSCRIPTION AGREEMENT

1. DEFINITIONS IN THIS ANNEXURE

Capitalised terms used in this annexure have the same meaning as in the Notice of Meeting, unless context requires otherwise, or unless they are defined below.

Closing Date means the date any Convertible Notes are, or are proposed to be, issued in accordance with the Notes Subscription Agreement, being a date no later than 30 June 2015.

Issue Date means the date that the first Convertible Note (regardless of whether it is a Tranche 1 Convertible Note or a Tranche 2 Convertible Note) under the Notes Subscription Agreement is issued.

Issue Price means the face amount in US dollars of a Convertible Note issued under the Convertible Note Documents.

Issue Price Limit means:

- (a) in respect of Convertible Notes issued or to be issued to Glencore under Tranche 1, US\$30 million in aggregate; and
- (b) in respect of Convertible Notes issued or to be issued to Glencore under Tranche 2, US\$20 million in aggregate.

Major Representations means representations and warranties by the Company relating to incorporation, capacity and authorisation, there being no breach of laws or material agreements in respect of the Notes Subscription Agreement or related documents, obligations being legal, valid, binding and enforceable, the

equal ranking of the Convertible Notes, and approvals in connection with the Convertible Notes.

Major Default means an event of default with respect of the Company that occurs in relation to non-payment of Convertible Notes amounts, breach of the negative pledge obligation and insolvency.

Material Adverse Effect means an event reasonably likely to have a material adverse effect on the condition (financial or otherwise), operations, earnings, business, properties of the Company or the Company's group where applicable taken as a whole or the ability of the Company to perform its material obligations under the Notes Subscription Agreement.

2. SUMMARY

The Company and Glencore entered into the Notes Subscription Agreement on 13 October 2011.

Subject to the terms and conditions of the Notes Subscription Agreement, the Company has agreed to the creation and issue to Glencore of two tranches of US dollar floating rate amortising convertible notes (being the Convertible Notes), as follows:

- (a) Tranche 1: up to US\$30 million in aggregate principal amount, due on the fourth anniversary of the Issue Date; and
- (b) Tranche 2: up to US\$20 million in aggregate principal amount, due on the fourth anniversary of the Issue Date.

The Convertible Notes are convertible to shares, and secured by the Convertible Note Security.

3. ISSUE OF CONVERTIBLE NOTES

If the Company wishes Glencore to subscribe for any Convertible Notes, the Company may make a subscription request to Glencore (which request may be made multiple times), setting out:

- (a) the Tranche in respect of which the request is made;
- (b) the subscription amount required, which must be a minimum of US\$5 million; and
- (c) the Closing Date in respect of those Convertible Notes.

Glencore undertakes to the Company that, subject to the provisions of the Notes Subscription Agreement, it will subscribe and pay for Convertible Notes on the applicable Closing Date at the Issue Price.

The Company may not request or make any issue of Convertible Notes:

- (a) under Tranche 2, unless and until it has issued all the Convertible Notes under Tranche 1; or
- (b) if, as a result of the issue of such Convertible Notes, the Issue Price Limit of a Tranche would be exceeded.

4. PURPOSE OF ISSUE OF CONVERTIBLE NOTES

Amounts raised by the Company from issuing the Convertible Notes may only be used by it towards funding:

- (a) cash consideration payable in respect of any Target Acquisition;
- (b) costs and expenses incurred in connection with any Target Acquisition; and
- (c) with Glencore's consent, working capital of the Company's corporate group.

5. CONVERTIBLE NOTES SECURITY

If the Target is a company, Glencore's obligation to subscribe and pay for Convertible Notes is subject to:

- (a) a condition precedent that it receives:

- (i) the Target Equitable Share Mortgage; and
 - (ii) if the shares in the Target are held by a subsidiary, an Accession Letter from that subsidiary,
- in form and substance satisfactory to Glencore (acting reasonably); and
- (b) a condition subsequent that, if the Company acquires 100% of the shares in the Target, then, within 60 days after that time, the Company procures:
 - (i) an Accession Letter from the Target;
 - (ii) the Target Fixed and Floating Charge; and
 - (iii) appropriate opinions from the Company's and Glencore's legal advisers regarding the enforceability of the security.

If the Target is an asset (other than shares in a company), Glencore's obligation to subscribe and pay for Convertible Notes is subject to a condition subsequent that, if the Company acquires the Target, then, within five days after completion of the Target Acquisition, the Company procuring:

- (a) security over the Target to support the Company's obligations under the Convertible Note Documents; and
- (b) appropriate opinions from the Company's and Glencore's legal advisers regarding the enforceability of the security.

6. BOARD REPRESENTATION

From the first issue of Convertible Notes, for as long as any Convertible Notes remain outstanding, the Company must procure the appointment to its Board of at least three persons nominated by Glencore, so that they comprise one third of the aggregate number of Directors (not including independent and non-executive Directors). If Glencore ceases to hold any Convertible Notes, it will procure that any Directors so appointed pursuant to clause 2.5 of the Notes Subscription Agreement tender their resignations.

7.**COMPANY REPRESENTATIONS AND WARRANTIES**

The Company makes a number of representations and grants a number of warranties to Glencore that are considered standard in the circumstances. The representations and warranties are repeated on each date falling on or before each Closing Date.

8.**COMPANY UNDERTAKINGS**

The Company undertakes that:

- (a) if the Company does anything that would result in an adjustment to the Conversion Price (as defined in the Notes Deed Poll) then the Conversion Price for all subsequent Convertible Notes issues will also be adjusted as though those Convertible Notes were on issue at the time of that adjustment; and
- (b) the Company will comply in a timely manner with any filing or other requirements in connection with the creation, issue and sale of the Convertible Notes, the execution of and the performance by the Company of its obligations under the Notes Subscription Documents, and in connection with the issue of the Shares upon conversion of the Convertible Notes in accordance with the Notes Deed Poll.

9.**CONDITIONS PRECEDENT TO CLOSING FOR CONVERTIBLE NOTES**

Glencore's obligations to subscribe and pay for the Convertible Notes are subject to a number of conditions precedent (which Glencore may waive in its discretion).

In relation to the **first** Convertible Note, Glencore will only be obligated to subscribe and pay for the Convertible Note if:

- (a) Glencore receives the closing documents (which includes evidence that the Company's directors have approved the Notes Subscription Agreement, the Target Equitable Share Mortgage (if the Target is a company), the Notes Deed Poll, the Commercial Documents, and the transactions they contemplate);

- (b) the Notes Deed Poll has been executed and the original provided to Glencore;
 - (c) if the Target is a company, the Target Equitable Share Mortgage has been executed;
 - (d) the Commercial Documents (other than the Glencore Global Offtake Agreement) have been executed;
 - (e) the Shareholders have approved:
 - (i) the issue of the Convertible Notes (and Shares on their conversion) for the purposes of ASX Listing Rule 7.1 and section 611 item 7 of the Corporations Act;
 - (ii) if the Target is a company, the grant of the Target Equitable Share Mortgage for the purposes of the ASX Listing Rule 10.1;
 - (iii) the entry into all of the Commercial Documents for the purposes of ASX Listing Rule 10.1; and
 - (iv) any other approvals required to carry out the transactions in connection with the issue of Convertible Notes, the entry into the Commercial Documents and the grant of the Target Equitable Share Mortgage under the ASX Listing Rules or the Corporations Act; and
 - (f) Glencore has obtained all necessary regulatory approvals (including under the *Foreign Acquisitions and Takeovers Act 1975* (Cth)).
- In relation to **all** Convertible Notes (including the first Convertible Note), Glencore will only be obligated to subscribe and pay for the Convertible Notes if:
- (a) no event, change or condition occurs, is announced or becomes known to Glencore (whether or not it becomes public), where that event, change or condition has had, or could reasonably be expected to have, a Material Adverse Effect on the Company's group (except for events,

- changes and conditions publicly announced by the Company or otherwise disclosed in public filings by the Company or any of its subsidiaries prior to the date of this agreement where the relevant disclosure is not, and is not likely to be, incomplete, incorrect, untrue or misleading). If requested by the Company, Glencore will confirm promptly (and in any event within one business day of the request) whether or not it considers this condition precedent is satisfied. If Glencore confirms this condition precedent is satisfied, it will be deemed to have waived this condition precedent in respect of the Target Acquisition (and the subscription and payment for Convertible Notes issued in respect of that Target Acquisition) if, within two business days after the Company receives the confirmation:
- (i) (where that Target is a listed company) the Company publicly announces an intention to make that Target Acquisition; or
 - (ii) (where that Target is assets other than a listed company) the Company completes the Target Acquisition.
- (b) none of any of the following events occur on or before the Closing Date for that issuance:
- (i) any Major Representations by the Company are untrue or incorrect;
 - (ii) the Company or any member of its group enters into any business combination transaction (other than the Target Acquisition confirmed by Glencore);
 - (iii) the Company or any of its subsidiaries issues shares (other than as a result of the exercise of Company options currently on issue) or issues convertible securities (other than as consideration for the Target Acquisition confirmed by Glencore);
 - (iv) the Company or any of its subsidiaries announces or otherwise undertakes a capital reorganisation or similar;
- (v) the Company or any of its subsidiaries declares, pays or announces a dividend;
 - (vi) any Target MAC occurs. For the purposes of this clause, "Target MAC" means, in respect of the acquisition of a Target that is a listed company, any "material adverse change" condition included in the Bidder's Statement in respect of that Target Acquisition, the occurrence of which permits the Company not to complete the Target Acquisition, provided that:
- (A) Glencore has notified the Company that such condition must be included in the Bidder's Statement (provided Glencore provides such notification in writing at or before the time it provides its confirmation of the Target);
 - (B) the Company has not waived such condition before it occurs (it being acknowledged that the Company does not require any consent from Glencore to waive any such condition before it occurs); and
 - (C) the Takeovers Panel has not determined such condition cannot be relied upon;
- (c) the Company has notified Glencore of the identity of the Target;
 - (d) Glencore has confirmed in writing:
 - (i) that it accepts the proposed Target Acquisition (once provided, any confirmation will apply to all issues of Convertible Notes in respect of that Target, provided that any confirmation in respect of a Target will cease to be effective if:
 - (A) (where the Target is a listed company) the Company has not, within 15 business days of

- | | |
|--|---|
| <p>receipt of the confirmation, publicly announced an intention to make the Target Acquisition; or</p> <p>(B) (where the Target is assets other than a listed company) the Target Acquisition is not completed within any time period prescribed by Glencore at the time it gives the confirmation); and</p> <p>(ii) any further conditions precedent that Glencore determines, in its discretion, are required having regard to the nature of the Target or the Target Acquisition, provided any such conditions precedent are notified to the Company at or before the time Glencore approves the Target;</p> <p>(e) the Company has satisfied any additional conditions precedent specified by Glencore; and</p> <p>(f) the proposed Target Acquisition has not lapsed, been withdrawn or has otherwise not proceeded at any time after the Company has received Glencore's written confirmation of it.</p> | <p>(a) the Company does not need to deliver the Convertible Notes; and</p> <p>(b) Glencore does not need to subscribe or pay for the Convertible Notes.</p> |
|--|---|

10.

GLENCORE'S RIGHT TO TERMINATE

Glencore may terminate the Notes Subscription Agreement by giving a termination notice to the Company at any time prior to the payment to the Company of the net proceeds of a proposed issue of Convertible Notes on the Closing Date for that Convertible Note, if:

- | |
|--|
| <p>(a) a Major Default is continuing or would result from the proposed issue of Convertible Notes; and</p> <p>(b) any of the conditions precedent for the closing of the Convertible Notes is not satisfied or, waived by Glencore, on the Closing Date for that Convertible Note.</p> |
|--|

If Glencore gives the Company a termination notice, then in respect of the proposed issue of Convertible Notes:

Annexure C

SUMMARY OF TERMS OF THE NOTES DEED POLL

1. DEFINITIONS IN THIS ANNEXURE

Capitalised terms used in this annexure have the same meaning as in the Notice of Meeting, unless context requires otherwise, or unless they are defined below.

Guarantor means each wholly owned subsidiary of the Company that has delivered an Accession Letter to the Noteholders.

Obligors means the Company and each Guarantor.

2. SUMMARY

Before issue of the Convertible Notes, the Company will enter into the Notes Deed Poll. The Convertible Notes are subject to the terms and conditions set out in the Notes Deed Poll.

3. KEY FEATURES OF THE CONVERTIBLE NOTES

The following are the key features of the Convertible Notes:

- (a) **(maturity date)** the maturity date of each Convertible Note is the fourth anniversary of its issue date;
- (b) **(transferability)** subject to applicable laws, the Convertible Notes are freely transferable;
- (c) **(status)** the Convertible Notes are unsubordinated and unconditional and will at all times rank equally among themselves and at least equally with all other present and future direct, unsubordinated, unconditional and unsecured obligations of the Company (subject to law);

- (d) **(negative pledge)** the Company and its subsidiaries must not create or permit to subsist security interests on any part of its undertaking, assets or revenue to secure or provide a guarantee of Relevant Indebtedness, without securing the Convertible Notes equally to the satisfaction of the Noteholders, and providing such other security for the Convertible Notes as is required by an ordinary resolution of Noteholders. Relevant Indebtedness means any present or future indebtedness that is in the form of or represented by any bond, note, debenture, debenture stock or loan stock which is, or is capable of being, listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market);
- (e) **(interest)** a Convertible Note bears interest from the Closing Date of that Convertible Note at the rate of LIBOR plus 5%, payable quarterly in arrears;
- (f) **(redemption)** the Convertible Notes may only be redeemed in one of the following ways:
 - (i) **(Company's option)** The Company has the option to redeem the Convertible Notes at their principal amount, in whole (but not in part), at any time during the conversion period, by giving Noteholders not less than 30 and not more than 60 days' notice of the redemption date (**Redemption Date**). However, if at any time up until the day before the Redemption Date, a Noteholder gives the Company a conversion notice in relation to the Convertible Notes to be redeemed, the Company cannot redeem those Convertible Notes under this mechanism;
 - (ii) **(maturity redemption)** unless previously redeemed, converted, or purchased and cancelled, the Convertible Notes will be redeemed at their principal amount on the maturity date;
 - (iii) **(amortisation)** partial redemptions of US\$3 million of the principal amount must be made in aggregate in respect of

both Tranches on each interest payment date commencing with the first such date that falls 18 months after the issue date, until the Convertible Notes are fully redeemed; or

- (iv) **(tax reasons redemption)** the Company has an option (subject to satisfying certain conditions) to redeem the Convertible Notes if the Noteholders can be made reasonably satisfied that a subsequent change in tax law has resulted in the Company being obligated to pay additional tax in relation to the Convertible Notes. The Noteholders may elect not to have their Convertible Notes redeemed, in which case the Company will not be obliged to pay the additional tax amount on behalf of the Noteholders or indemnify the Noteholders in respect of it; and

- (g) **(purchase by Company)** the Company may purchase the Convertible Notes at any time, following which such Convertible notes will be cancelled.

4. GUARANTEES

Each Guarantor:

- (a) guarantees to each Noteholder the payment of all money payable to that Noteholder under the Convertible Note Documents; and
- (b) agrees to procure the performance by the Company of its obligations under the Convertible Note Documents.

5. COSTS AND TAXATION

The Obligor must pay all stamp duties, registration taxes and similar that are payable on the constitution, issue and initial delivery of the Convertible Notes, any action taken by any Noteholder to enforce the provisions of the Convertible Note Documents, and the execution of the Convertible Note Documents.

All payments by the Obligors under the Convertible Note Documents will be made free and clear of any taxes, duties or similar. If a deduction or withholding is

required by law, the Obligor will pay to the Noteholders an additional amount equal to that deduction or withholding (except in certain limited circumstances).

6. EVENTS OF DEFAULT

The Noteholders may declare in writing to the Company that the Convertible Notes are immediately payable, if any of the following events occurs:

- (a) **(non-payment)** an Obligor fails to pay any amount of principal in respect of the Convertible Notes on the due date, or fails to pay any amount of interest in respect of the Convertible Note Documents within three days of the due date;
- (b) **(condition subsequent)** the Company fails to satisfy any condition subsequent agreed in the Notes Subscription Agreement, strictly in accordance with its terms;
- (c) **(breach of other obligations)** an Obligor breaches any of its other obligations under the Convertible Note Documents and such default is (in the reasonable opinion of the Noteholders) incapable of remedy, or if capable of remedy, remains unremedied for 30 days;
- (d) **(incorrect representation or warranty)** a representation or warranty made by an Obligor in connection with a Convertible Note Document is found to have been materially incorrect or misleading and remains so for 30 days;
- (e) **(cross-acceleration of Obligor or subsidiary)**
 - (i) any indebtedness of the Company or any of its subsidiaries is not paid when due;
 - (ii) any such indebtedness becomes due and payable prior to its stated maturity otherwise than:
 - (A) at the option of the Company or (as the case may be) the relevant subsidiary; or

(B) (provided that no event of default, howsoever described, has occurred) at the option of any person entitled to such indebtedness;

(iii) the Company or any of its subsidiaries fails to pay when due any amount payable by it under any guarantee of any indebtedness; or

(iv) provided that the amount of any such indebtedness referred to in previous paragraphs individually or in the aggregate exceeds US\$5 million (or its equivalent in any other currency);

(f) **(unsatisfied judgment)** one or more judgment for the payment of any amount in excess of US\$5 million (or its equivalent in any other currency), whether individually or in aggregate, is rendered against the Company or any of its subsidiaries and continues unsatisfied and unstayed for a period of 30 days;

(g) **(security enforced)** a secured party takes possession, or a receiver, manager or other similar officer is appointed, over the whole or any substantial part of the undertaking, assets and revenues of an Obligor;

(h) **(insolvency)** an Obligor is or becomes insolvent;

(i) **(failure to take action)** any action, condition or thing at any time required to be taken, fulfilled or done in order:

(i) to enable an Obligor lawfully to enter into, exercise its rights and perform and comply with its obligations under and in respect of a Convertible Note Document;

(ii) to ensure that an Obligors obligations under the Convertible Note Documents are legal, valid, binding and enforceable; and

(iii) to make a Convertible Note Document admissible in evidence in the courts of Australia,

is not taken, fulfilled or done;

(j) **(unlawfulness)** it is or will become unlawful for an Obligor to perform or comply with any of its material obligations under or in respect of a Convertible Note Document; or

(k) **(change of business)** more than 50% of the assets of the Company (taken together) are utilised other than for mining purposes (as defined in section 9 of the Corporations Act).

7. CONVERSION RIGHTS

The Company and the Noteholder each has the right to convert a Convertible Note issued under Tranche 1 into a fully paid Share at any time following 18 months after its date of issue.

The Noteholder has the right to convert a Convertible Note issued under Tranche 2 into fully paid Shares at any time following 18 months after its date of issue.

Any conversion by a Noteholder must be in respect of Convertible Notes with an aggregate principal amount of at least US\$5 million, or the balance of the Convertible Notes held by the Noteholder.

The Shares issued on conversion will rank equally in all respects with existing Shares.

8. CONVERSION RATIO AND PRICE

The number of Shares to be issued on conversion is determined by dividing the principal amount of the Convertible Note (converted to Australian dollars) by the conversion price in effect on the conversion date.

The conversion price is for a Convertible Note is:

(a) for Tranche 1 - A\$0.42; and

- (b) for Tranche 2 – A\$0.50,
subject to any adjustment.

9. ADJUSTMENTS TO THE CONVERSION PRICE

The conversion price may be adjusted for any of the following reasons (on terms which are considered standard in the circumstances):

- (a) change of control;
- (b) extraordinary dividends;
- (c) bonus issues;
- (d) consolidation or subdivision of shares;
- (e) shares, rights and share-related securities issued to Shareholders;
- (f) issue of other securities to Shareholders;
- (g) issues of Shares at below current market price;
- (h) share-related securities issued other than to Shareholders;
- (i) issues of Shares, rights and share-related securities at below conversion price;
- (j) amendment of terms of rights or share-related securities;
- (k) demerger or spin-off;
- (l) other events (where reasonable);
- (m) capitalisation of profits and reserves;
- (n) reduction in share capital; and
- (o) adjustments for conversion near a record date.

Annexure D

SUMMARY OF THE CONVERTIBLE NOTE SECURITY DOCUMENTS

TARGET EQUITABLE SHARE MORTGAGE

1. DEFINITIONS IN THIS ANNEXURE

Capitalised terms used in this annexure have the same meaning as in the Notice of Meeting, unless context requires otherwise, or unless they are defined below.

Event of Default has the meaning given to it in the Notes Deed Poll.

2. SUMMARY

The Notes Subscription Agreement contains a condition precedent that the Company grant to Glencore an equitable mortgage of the shares in the Target.

3. SECURED PROPERTY AND SECURED MONEY

(a) The property subject to the mortgage (**Secured Property**) comprises:

- (i) the Company's right title and interest in the shares it holds in the Target at the date of the mortgage;
- (ii) any issued shares in the Target acquired by the Company after the date of the mortgage;
- (iii) any shares issued by the Target after the date of the mortgage which are acquired by the Company; and
- (iv) the rights (**New Rights**) of the Company in connection with the shares such as dividends, conversion or redemption rights and rights as a result of a reduction of capital or liquidation.

(b) The Secured Property secures payment of all amounts in connection with the Convertible Note Documents that:

- (i) are owing by the Company to Glencore and each Noteholder;
- (ii) have been advanced or paid on the Company's behalf or at its request; or
- (iii) Glencore/Noteholder is liable to pay by reason of any act or omission on Glencore's part.

4. RESTRICTED DEALINGS

Without consent, the Company may not:

- (a) dispose of the Secured Property;
- (b) create or allow to exist another Security Interest over the Secured Property which ranks ahead of the interest of Glencore;
- (c) change the Controlling Participant in relation to any Secured Property unless required or permitted under the Sponsorship Agreement;
- (d) waive any of the Company's rights or release any person from its obligations in connection with the Secured Property;
- (e) assign or otherwise deal with the Secured Property, the mortgage or any interest in them; or
- (f) take any action that will operate to convert a certificated share into an uncertificated share.

5. DIVIDENDS AND VOTES

(a) Until an Event of Default is continuing:

- (i) the Company may:

- (A) retain all dividends and income in respect of the Secured Property;
- (B) exercise rights to take up further shares in the Target; and
- (C) exercise any voting power in respect of the Secured Property; and
- (ii) Glencore may not exercise any voting power without the Company's consent.
- (b) If an Event of Default is continuing, then:
- (i) the rights of the Company in paragraph (a) above cease and Glencore is entitled to payment of all dividends and other income in respect of the Secured Property; and
- (ii) Glencore is entitled to exercise rights to take up further shares in the Target and exercise the voting power in respect of the Secured Property.
- 6. MAINTAINING THE SECURED PROPERTY**
- The Company agrees to:
- (a) pay all amounts required to be paid as owner of the Secured Property;
- (b) provide Glencore with particulars of any New Rights and, if Glencore requests, take up the New Rights;
- (c) ensure a Sponsorship Agreement is in force if any Secured Property is an Approved Financial Product;
- (d) not do anything that would materially lower the value of the Secured Property;
- (e) give Glencore a copy of any notice given to the shareholders of the Target; and
- (f) not do anything that may result in Glencore's rights ranking in priority behind any claim of the Company over the Secured Property.
- 7. DEFAULT**
- (a) If an Event of Default is continuing Glencore may enforce the security and appoint a receiver or receiver and manager (Receiver) or exercise the rights of a Receiver.
- (b) Until an Event of Default is continuing, Glencore is not entitled to take any action or give any instructions under the Sponsorship Agreement.
- 8. RECEIVER'S POWERS**
- The Receiver may:
- (a) sell, transfer or otherwise dispose of the Secured Property;
- (b) obtain registration of the Secured Property in Glencore's name;
- (c) do everything necessary to enable Glencore or its nominee to receive any New Rights; and
- (d) do anything else the law allows a Receiver to do.
- 9. POWER OF ATTORNEY**
- The Company appoints Glencore and a Receiver as attorney to do anything necessary in connection with the mortgage and the Secured Property.

TARGET FIXED AND FLOATING CHARGE

1. SUMMARY

The Notes Subscription Agreement contains a condition subsequent that if the Company acquires 100% of the shares in the Target, then the Company agrees to procure a fixed and floating charge from the Target in favour of Glencore.

2. SECURED PROPERTY AND SECURED MONEY

The Target charges all of its present and future rights, property and undertaking (**Secured Property**) to secure payment of all amounts in connection with the Convertible Note Documents that:

- (a) are owing by the Target to Glencore and each Noteholder;
- (b) have been advanced or paid on the Target's behalf or at its request; or
- (c) Glencore/Noteholder is liable to pay by reason of any act or omission on the Target's part.

3. NATURE OF THE CHARGE

(a) The charge is fixed over all present and future:

- (i) capital;
- (ii) goodwill;
- (iii) estates and interests in land;
- (iv) plant and machinery;
- (v) securities and documents of title deposited with Glencore;
- (vi) insurance policies;
- (vii) books of account and record relating to the Target's business; and

(viii) interests in personal property that are not acquired in the ordinary course of business.

(b) The charge is floating over all property other than that subject to the fixed charge.

(c) The charge converts from floating to fixed, if:

- (i) an Event of Default is continuing or it is necessary to protect Glencore's rights under the charge;
 - (ii) the Target breaches an obligation in relation to the restrictions on dealings (see below);
 - (iii) distress is levied or a judgment, order or security interest becomes enforceable; or
 - (iv) the Target becomes insolvent.
- (d) The Target agrees to collect its book debts until Glencore otherwise directs when an Event of Default is continuing.

4. RESTRICTIONS ON DEALINGS

- (a) Without consent, the Target cannot create another Security Interest over the Secured Property other than any permitted security interest. Permitted security interests include any Security Interest created prior to the date of the charge but not in anticipation of the charge.
- (b) Without consent, the Target cannot dispose of any Secured Property subject to the fixed charge except:
 - (i) in the ordinary course of business on normal commercial terms;
 - (ii) on arms-length terms if not a material party of the Target's business;

SPONSORSHIP AGREEMENT		
	1. SUMMARY	
		If the Target is listed on the ASX, the Company agrees to enter into a Sponsorship Agreement with Glencore and a CHES sponsor (Participant) whereby the Participant is the sponsor of all Secured Property that is an Approved Financial Product under the Settlement Rules (Securities).
	2. APPOINTMENT OF THE PARTICIPANT	
		The Company appoints the Participant to provide transfer and registration services as agent for the Holder of the Securities. Subject to the Company's right to remove the Participant or terminate the agreement, the appointment is irrevocable until Glencore executes a release of the mortgage.
	3. AUTHORITY OF THE PARTICIPANT	
		The Company authorises the Participant to effect any transfers or conversions necessary to register the Securities with the Participant and transfer or otherwise deal or act in connection with the Securities in accordance with the instructions of Glencore.
	4. OBLIGATIONS OF THE PARTICIPANT	
		(a) On instructions from the Company, but subject to the instructions of Glencore, the Participant agrees to take all necessary steps to effect the transfer and registration of the Securities in the name of the Company.
		(b) The Participant may not take action in relation to the Securities except in accordance with the instructions, or with the consent, of Glencore.
	5. RELEASE OF MORTGAGE	
		(a) Glencore agrees to notify the Participant of the release of the mortgage.
5. DEFAULT		
(iii) of obsolete or damaged assets;		
(iv) if required by law; or		
(v) where the aggregate value of all assets does not exceed A\$1 million in one year.		
6. RECEIVER'S POWERS		
		The Receiver may:
(a) improve the Secured Property;		
(b) sell, transfer or otherwise dispose of the Secured Property;		
(c) lease or licence the Secured Property;		
(d) take or give up possession of the Secured Property;		
(e) sever, remove and sell fixtures attached to the Secured Property; and		
(f) do anything else the law allows a Receiver to do.		
7. POWER OF ATTORNEY		
		The Target appoints Glencore and each Receiver as attorney to do anything necessary in connection with the charge and the Secured Property.

- (b) The Company may terminate this agreement in relation to any Participant Securities on execution of the release of the mortgage over those Participant Securities.

Annexure E

Independent Expert's Report



The Directors
Ironbark Zinc Limited
Level 1, 350 Hay Street
SUBLACO WA 6008

1 November 2011

Dear Sirs

**Independent Expert's Report in relation to the proposed issue of convertible notes to
Glencore International plc group**

1. On 13 October 2011, Ironbark Zinc Limited ("Ironbark" or "the Company") entered into interrelated commercial, convertible note subscription and offtake agreements with entities wholly owned by the Glencore International plc group ("Glencore").
2. Under the terms of these agreements (collectively "the Glencore Convertible Note Agreements" or "the Proposal"):
 - Glencore will provide a USD 50 million convertible note facility ("the Facility") to Ironbark; and
 - Ironbark will grant to Glencore certain offtake rights over base metal production from Ironbark's Citronen Fjord Zinc Project ("the Citronen Project") and over future base metal production arising from any other projects held by Ironbark (or any subsidiary) acquired in part from funds drawn down under the Facility (or where these cannot be provided, a fee based on mineral revenue).
3. The Facility is being provided for investment purposes and is intended to be used for funding acquisitions of shares and/or assets, but may with the consent of Glencore be used for working capital purposes.
4. The Glencore Convertible Note Agreements are conditional upon approval by non-associated shareholders of Ironbark.

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5. The Proposal provides Ironbark with access to funding in two tranches of convertible notes. The key terms of the convertible notes to be issued to Glencore (“the Glencore Convertible Notes”) are as follows:

	Tranche 1	Tranche 2
Principal:	USD 30 million	USD 20 million (only once Tranche 1 is fully drawn)
Rate of interest:	USD LIBOR +5%	USD LIBOR +5%
Term:	Four years from issue with capital repayments commencing after 18 months	Four years from issue with capital repayments commencing after 18 months
Conversion price to ordinary shares:	A\$0.42 per Ironbark share ¹	A\$0.50 per Ironbark share ¹
Conversion rights:	At option of either Glencore or Ironbark at any time after 18 months from issue	At option of Glencore at any time after 18 months from issue

¹ Subject to adjustment for defined events

6. Other key terms of the Glencore Convertible Note Agreements include:

- The Glencore Convertible Notes will be secured by an equitable mortgage over all shares acquired by Ironbark in a target company (where shares in a target are acquired) or a fixed and floating charge over assets acquired by Ironbark (where assets are acquired or where 100% of the equity in a target is acquired) for which the consideration is financed, in whole or in part, from the issue of the Glencore Convertible Notes.
- Provision of the Facility is conditional on Ironbark entering into offtake arrangements for future base metal production:
 - Establishment of the Facility will grant Glencore offtake rights for 35% of zinc concentrate production from the Citronen Project over a ten year period from commencement of production and 35% of lead concentrate production over the life of mine; and
 - Upon the issue of Glencore Convertible Notes under the Facility, Glencore’s offtake rights from the Citronen Project will increase to 55% of zinc concentrate production for a ten year period and 55% of lead concentrate over the life of mine. Glencore will also become entitled to the life of mine offtake (or where this is not provided a fee of 1% of revenue) associated with base metal production by Ironbark (or any subsidiary



of Ironbark) from any assets acquired in part with the proceeds of the Glencore Convertible Notes;

- Future base metal production from the Citronen Project which is subject to offtake by Glencore will be excluded from the existing exclusive marketing agency agreement with Glencore. Under this agreement, an agency fee of USD 10 is payable for each tonne of zinc and lead concentrate production from the Citronen Project over the duration of the agency agreement (the term of which is for a minimum of six years from commencement of commercial production);
 - Glencore being granted rights to appoint at least three Directors to the Board of Ironbark upon the first issue of any Glencore Convertible Notes, with such directors to comprise one third of the aggregate number of directors (excluding non-executive and independent directors) for so long as Glencore Convertible Notes remain on issue;
 - The funds from the issue of the Glencore Convertible Notes are to be applied for the acquisition by Ironbark of shares or assets, or subject to the approval of Glencore, for working capital purposes. Glencore must be informed of any proposed acquisition and retains the right not to subscribe for Glencore Convertible Notes if it does not accept the proposed target shares or assets; and
 - Ironbark is not to dispose of any direct or indirect interest in the Citronen Project unless and until a commitment has been entered into by the proposed purchaser to honour the offtake agreement with Glencore.
7. Section 606 of the Corporations Act (“s606”) provides a general prohibition to an entity increasing its relevant interest in the issued voting shares of a listed company to greater than 20%. Although neither the establishment of the Facility nor the issue of the Glencore Convertible Notes will increase Glencore’s voting shares in Ironbark, conversion of the notes into equity is likely to result in Glencore’s voting interest in Ironbark increasing to above the threshold of 20% allowed under s606 in the absence of further shares being issued to parties other than Glencore.
8. There are various exceptions to the general prohibition of s606, including those set out in Section 611 of the Corporations Act (“s611”). Under item 7 of s611, an acquisition of interests in a company’s voting shares to greater than 20% is allowed if, at a general meeting, a majority of the non-associated shareholders pass an ordinary resolution approving the transaction.
9. As Glencore is currently a substantial shareholder of Ironbark, prior approval of Ironbark’s non-associated shareholders is also being sought by the Directors of Ironbark for the possible future grant of security over Ironbark’s assets upon issue of the Glencore Convertible Notes and for



execution of the offtake agreement in accordance with a potential requirement for such approval under ASX Listing Rule 10.1.

10. The Directors of Ironbark have commissioned this report to assist shareholders of Ironbark not associated with Glencore (“non-associated shareholders”) to assess whether to approve the Proposal, under which:
 - The issue of Glencore Convertible Notes would result in the grant of security and other benefits to a related party; and
 - Glencore’s interest in Ironbark could increase to greater than 20% if the Glencore Convertible Notes are converted to shares.

Our Conclusions

11. In our assessment of the terms of the Glencore Convertible Notes, we have considered the substance of the transaction as a whole including the terms of the interrelated agreements with Glencore upon which provision of the Facility is conditional. The shares which may be issued to Glencore pursuant to the Glencore Convertible Notes comprise new shares and together with the current shares on issue would exceed 20% of the Ironbark issued shares if converted. Other aspects of the Glencore Convertible Note Agreements also provide Glencore with increased levels of influence over the activities of Ironbark. As such, in accordance with guidance principles published by the Australian Securities and Investments Commission, we have assessed the proposed transaction as if it were a control transaction.
12. A summary of our opinion is set out below. Our opinion should be read in conjunction with the whole of this report including its appendices.

In our view the Glencore Convertible Note Agreements are not fair but are reasonable for the non-associated Ironbark shareholders.

The Glencore Convertible Note Agreements are not fair.

13. In our assessment of whether the Glencore Convertible Note Agreements are fair, we have analysed the possible share issue to Glencore in the same manner as a takeover bid. This has involved comparison of the consideration offered by Glencore under the Proposal with the value of securities to be allotted (such securities being valued assuming 100% ownership of the Company) and other rights granted to Glencore. As the purpose of our report is to assist shareholders in their assessment of whether to approve the Glencore Convertible Note Agreements, which may lead to the issue of Glencore Convertible Notes of up to USD 50 million, our assessment of fairness has been made on the basis of a full draw down of the Facility.



14. The first tranche of Glencore Convertible Notes (“Tranche 1”) has put and call attributes for conversion which, in substance, reflect a deferred share issue.
15. The second tranche of Glencore Convertible Notes (“Tranche 2”) do not have similar attributes to Tranche 1, as these are only convertible to Ironbark shares at the option of Glencore. Whilst the current Ironbark share price is significantly below the Tranche 2 conversion price, the value of Ironbark shares is highly leveraged to the expectations for the long term zinc price and progress of the Citronen Project and is expected to have an elevated level of volatility over the short to medium term. As the Glencore Convertible Notes have a life of between 18 months and four years from the date of issue, this provides considerable option value to Glencore. Redemption of the Glencore Convertible Notes will progressively occur 18 months from issue. If Ironbark’s projects have advanced and base metal conditions are favourable such that Ironbark’s share price has risen above \$0.50, then it is reasonable to expect that Glencore would convert the Tranche 2 notes into Ironbark shares. If circumstances are not so favourable, then Glencore will not seek to convert and Ironbark will continue to repay the notes.
16. In the absence of an issue of Ironbark securities to parties other than Glencore prior to conversion of Tranche 1, Glencore’s interest in Ironbark would increase to above 20% irrespective of whether it elected to convert Tranche 2 into Ironbark shares. Under the Proposal, Glencore’s voting interest in Ironbark could increase from its current level of 12% to between 25% and 33%.
17. In our fairness assessment, we have considered:
 - the effective consideration payable by Glencore under Tranche 1 of the Facility as if it were a deferred share purchase;
 - the commerciality of the interest rate associated with Tranche 2 of the Facility and the option value associated with Glencore’s ability to convert the Glencore Convertible Notes into Ironbark shares;
 - the terms of the offtake agreements upon which the Facility is conditional; and
 - the controlling interest value of Ironbark’s shares.



18. Set out below is a summary of our assessed value for the consideration offered by Glencore and our assessed value of Ironbark shares (on a controlling interest basis).

Fairness Assessment



		Low	High	Paragraph
Effective consideration receivable by Ironbark under Tranche 1	\$ million	\$26.7	\$26.7	169
Less: option value to Glencore associated with Tranche 2 conversion rights	\$ million	(\$6.6)	(\$3.7)	178
Net consideration for shares issued under Tranche 1 and other offtake/marketing rights	\$ million	\$20.1	\$23.0	
Number of shares issued under Tranche 1	million	74.0	74.0	169
Maximum net consideration per Ironbark share (assuming no value associated with the offtake/marketing rights granted to Glencore)	\$/share	\$0.27	\$0.31	
Assessed value of Ironbark shares on a controlling interest basis	\$/share	\$0.32	\$0.43	140-142

19. We are unable to quantify the value of the offtake rights provided to Glencore but consider that the obligation to provide life of mine offtake arrangements to Glencore for all assets acquired in whole or in part with funds from the Facility (or where these are not provided a fee of 1% of revenue from such production) confers a benefit to Glencore to the detriment of Ironbark. However, our assessed valuation range for the net consideration offered by Glencore under the Glencore Convertible Note Agreements is lower than our assessed valuation range for Ironbark shares on a controlling interest basis even with no portion of the consideration payable by Glencore being ascribed to these rights. Accordingly, in our opinion, the Glencore Convertible Note Agreements are not fair.



The Glencore Convertible Note Agreements are reasonable.

20. In forming our opinion on the reasonableness of the Glencore Convertible Note Agreements, we have considered the following key advantages and disadvantages of the Proposal. A more detailed analysis of the advantages and disadvantages is set out in section VI of this report.

Advantages




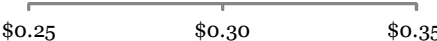
Access to the Facility provides added flexibility for the Directors of Ironbark to pursue potential acquisition opportunities where a cash consideration component is required.

21. Ironbark has not formalised a proposed acquisition, but it is actively evaluating a number of potential targets. If effected, a significant acquisition will increase the scale and profile of Ironbark, add project diversity and may lead to some re-rating of the Company. Ironbark does not currently have income producing assets and has limited capacity to secure debt funding for acquisition purposes. The Directors of Ironbark advise that a potential acquisition arising from targets under consideration is likely to involve the issue of further Ironbark ordinary shares to target shareholders or the vendors of target assets in addition to cash consideration provided by a full or partial draw down of the proposed Facility.
22. Access to equivalent cash funding through the issue of new shares would most probably only occur at a discount to the Ironbark share price and would not provide the same transaction flexibility and certainty as offered by the Facility.
23. The actual target assets or shares may vary from those currently under consideration by Ironbark. The formalisation of any offer, terms of any potential future acquisition and the success or level of acceptance of any potential acquisition offer and extent of draw down of the proposed Facility are currently uncertain and unquantifiable.

Tranche 1 of the Facility is favourably priced for Ironbark and the extent of the draw down of the Facility (including any utilisation of Tranche 2) is under the control of the Directors of Ironbark.

24. Glencore Convertible Notes issued under Tranche 1 may be converted to Ironbark shares at the option of Ironbark (as well as Glencore). After adjusting for interest expected to be payable to Glencore over the period up to when Ironbark can call for conversion, the effective consideration payable for shares converted under Tranche 1 of the Facility is at a premium to the current market price of Ironbark shares.

25. Under the Proposal, Glencore Convertible Notes issued under Tranche 2 of the Facility are not able to be converted at Ironbark's option and provide a benefit to Glencore. Our assessment of the fairness of the Proposal has considered the maximum potential draw down of the Facility and valued the conversion rights on the basis of a full controlling interest value. However, the extent of draw down of Tranche 2 (if any) is under the control of Ironbark and would be evaluated against both the benefits derived from use of the funds from this tranche and alternative funding sources.
26. A comparison of the minority interest value of Ironbark shares and the net consideration paid per Ironbark share under the Proposal assuming draw down of Tranche 1 only and assuming full draw down of both tranches is set out below. Our assessed range of implied consideration under each scenario also reflects the impact of non-dilute rights held by Nyrstar. We emphasise that as we have been unable to quantify the value of offtake rights provided to Glencore under the Proposal, the analysis set out below does not allocate any of the consideration payable by Glencore to these rights. Whilst the general terms of the offtake arrangements under the Proposal are consistent with other commercial arrangements, we consider that these rights confer a benefit to Glencore. Accordingly, the actual effective consideration payable per share is likely to be lower than that shown below.

Valuation of net consideration to Ironbark (with conversion of rights assessed on a minority interest basis)				Paragraph
Value of Ironbark shares on a minority interest basis	\$0.265		\$0.29	143-147
Net consideration per Ironbark share under Tranche 1			\$0.33 	\$0.34 191
Net consideration per Ironbark share assuming full drawdown of the facility (Note 1)	\$0.27		\$0.29	194
				

Note 1 Assuming full drawdown of the facility and conversion rights valued on a minority interest basis

27. If only Tranche 1 were drawn down, and depending on the view taken for the value of offtake rights provided to Glencore under the Proposal, the Proposal appears to be priced at a small premium to Ironbark's share price at the date of this report. As the premium arises from the issue of securities, it is shared by all Ironbark shareholders. However, the premium inherent in the terms of Tranche 1 of the Proposal is eroded by the value dilutive impact of option rights arising if Tranche 2 of the Facility is drawn down.
28. We also note that the consideration offered by Glencore will be subject to change as the actual exchange rate at conversion or settlement will vary from the forward rate of A\$0.966 which has been adopted for the purposes of our assessment.



Disadvantages

The Proposal will reduce the level of uncommitted production from the Citronen Project to 10% if the Facility is utilised. This will limit the ability of Ironbark to offer offtake rights to any other party who may be willing to offer development funding for the Citronen Project as part of a wider arrangement to secure offtake.

29. The offtake rights for concentrate production from the Citronen Project provided to Glencore under draw down of funding provided by the Proposal will, together with the existing Nyrstar offtake rights, cover 90% of concentrate production from this project. Ironbark believes that stand alone project financing is likely to be available for the Citronen Project subject to a satisfactory bankable feasibility study outcome. However, we consider that the expectation of a medium term zinc supply deficit provides some prospect that the availability of long term zinc concentrate offtake rights has the potential to provide added leverage for access to development funding from zinc smelters. In our view, this reduces the importance of locking in offtake in advance of completion of the bankable feasibility study. The Proposal will leave only 10% of the Citronen Project offtake uncommitted which we consider may be too small to be attractive to a prospective financier seeking to link the provision of finance with offtake rights.
30. We note that establishment of the Facility will increase the committed Citronen offtake to 70%. We do not view this as disadvantageous to Ironbark as we consider that the remaining 30% of production offtake would be sufficient to be attractive to a financier seeking offtake rights. However, upon any draw down of the Facility, the uncommitted offtake will reduce to 10% which we consider is disadvantageous to Ironbark.
31. Offtake provided to Glencore under the Glencore Convertible Note Agreements will be exempted from the USD 10 per tonne agency fee to which Glencore is currently entitled. We consider that partial relief from this fee may have a present value benefit to Ironbark of between \$2 million and \$3 million. However, we consider that this benefit is small relative to the loss of financing flexibility which would arise from the draw down of funds under the Proposal.

The extension of the conversion rights established under the Proposal to Nyrstar under its existing non-dilute agreement is value decreative to Ironbark Shareholders.

32. Nyrstar is party to a non-dilute agreement with Ironbark which provides it with the right to participate on a pro rata basis in future issues of securities. Whilst the conversion prices for the Glencore Convertible Notes are above the current Ironbark share price, it is not possible to predict the price at which Ironbark shares may trade at the future date of any conversion of Glencore Convertible Notes. If the share price at that time is higher than the conversion price, it is reasonable to assume that Nyrstar will exercise its rights to participate on the same terms. The Proposal therefore creates option rights to Nyrstar to the detriment of the remaining



shareholders. We have assessed the value decreative impact of these rights within our valuation of the implied consideration set out in paragraph 26 above.

Reduced prospect of a future control transaction for Ironbark shares

33. The Proposal will result in Glencore holding an increased significant shareholding in Ironbark, life of mine offtake/marketing rights over any assets or shares acquired pursuant to funding provided under the Proposal and offtake rights over 55% of production from the Citronen Project (assuming the Facility is drawn). The Proposal will also provide Glencore with increased board representation for so long as Glencore Convertible Notes are on issue.
34. The above rights will diminish the attractiveness of Ironbark as a takeover target to any party other than Glencore. This is likely to reduce the prospect of shareholders receiving a control premium for their shares other than from Glencore. However, as Glencore already holds a 12% interest in Ironbark's shares which will only increase to a maximum of 33% under the proposal and Nyrstar already holds a 26.5% interest in Ironbark, the attractiveness of Ironbark as a takeover target to any party other than Glencore or Nyrstar is already diminished to some degree.

Increased level of influence of major shareholders

35. Glencore will secure an increased equity interest in Ironbark, additional influence at Board level and greater economic influence over Ironbark as a result of draw down of the Facility established under the Proposal. However, the Proposal does not provide Glencore with a controlling interest in Ironbark. If the current shareholding mix is maintained, Glencore's level of voting interest in Ironbark will be countered by the voting interests of Nyrstar and L1 Capital.
36. In the absence of further shares being issued as part of an acquisition or a future capital raising, the Proposal will significantly increase the level of influence of Ironbark's two major shareholders relative to the remaining shareholders. The combined voting interest of Glencore and Nyrstar (although independent parties) could increase from its current level of 38.5% to between 48.8% and 56.9% depending on whether Glencore elects to convert securities issued under Tranche 2 into Ironbark shares and the extent to which Nyrstar elects to utilise its non-dilute rights.
37. The Proposal also provides Glencore with the right to appoint up to three Directors to the Board of Ironbark for so long as Glencore Convertible Notes are on issue. We note that Glencore Convertible Notes issued under Tranche 1 of the Facility may be converted to shares at Ironbark's option after 18 months from issue. Should only Tranche 1 of the Facility be drawn down by Ironbark and the Glencore Convertible Notes converted to shares at the earliest date, then Glencore will revert to its current right to appoint only one Director of Ironbark. However, Glencore will still maintain an elevated level of economic influence through the additional



offtake rights granted under the Proposal and the requirement for Glencore's approval of the use of funds drawn down under the Facility.

Potential exposure to repay Glencore Convertible Notes

38. We consider that Glencore Convertible Notes issued under Tranche 1 of the Facility will be converted to Ironbark shares at either the option of Ironbark or Glencore. However, Ironbark will become exposed to a requirement to redeem Glencore Convertible Notes issued under Tranche 2 in the event that these are not converted into equity at Glencore's option. Up to USD 20 million may be drawn down under Tranche 2 of the Facility with a requirement to redeem notes at the rate of USD 3.0 million per quarter, commencing 18 months from the date of issue. Ironbark does not have any income producing assets and the development of the Citronen Project will not take place within the required repayment time frame for the Glencore Convertible Notes.
39. There is no clarity on the cashflow profile of any assets or shares which may be acquired by utilisation of the Facility. These shares or assets would be the only source of repayment of the Glencore Convertible Notes unless there is an equity issue or other refinancing which may not be attractive given the market conditions which might exist at that time. We note that it is under the control of the Directors of Ironbark to only draw down Tranche 1 of the Facility, which would reduce the risk of default.

Other factors considered

Relationship with a major global base metals trader

40. The Proposal will increase the level of Ironbark's existing commercial and strategic relationship with Glencore. The realisation of the commercial rights provided to Glencore are primarily dependent upon future exploitation of the Citronen Project and any assets acquired by Ironbark pursuant to the Glencore Convertible Note Agreements. However, Glencore is motivated to pursue its own global interests which may not be fully aligned with those of Ironbark or its non-associated shareholders. As such, at this stage we are unable to assess whether the additional exposure to Glencore which will arise under the Proposal is a net advantage or a net disadvantage.
41. The Glencore Convertible Note Agreements provide that the Glencore offtake arrangements are to be on standard industry terms and, as such, should be relatively neutral to Ironbark, albeit they are long term in nature. It is not unreasonable to assume that the impact of any production from a target acquisition where offtake rights were unable to be provided to Glencore will be factored into the Directors' assessment of the potential acquisition and not be pursued by Ironbark through funding under the Facility unless the acquisition was viewed to be value accretive to Ironbark's shareholders.



Alternative sources of finance

42. The Directors have advised that they have been unable to secure alternative sources of finance on more favourable terms which provide the flexibility offered by the Proposal to pursue potential acquisitions.

Basis of Opinion

43. If the Glencore Convertible Note Agreements are approved by shareholders, this will put in place a framework for Ironbark to pursue the potential acquisition of target shares or assets. The Facility will provide flexibility to Ironbark in formulating potential offers for target shares or assets. In our evaluation of the reasonableness of the Proposal, we have been mindful that Tranche 1 and Tranche 2 of the Facility have different implications for Ironbark and that the level of draw down of the Facility is under the control of the Directors of Ironbark.
44. The establishment of the Facility itself will result in Glencore being granted offtake rights to 35% of zinc concentrate production from the Citronen Project for a period of ten years and lead concentrate for the life of mine, but will relieve Ironbark from the obligation to pay a USD 10 per tonne agency fee to Glencore in relation to the production provided under the Glencore Convertible Note Agreements. We regard the establishment of the Facility by itself under the Proposal as being positive for Ironbark as the offtake terms being provided to Glencore are on a commercial basis, provide relief from the agency fee of USD 10 per tonne otherwise payable to Glencore on this production and leave 30% of the offtake from Citronen uncommitted (and potentially available as an incentive to attract some development funding from parties who may be seeking security of zinc and lead concentrate supply).
45. The drawdown of funds and issue of Glencore Convertible Notes under the Facility will only occur once a target has been agreed, a formal bid structured and offers accepted for at least part of the acquisition target shares or assets.
46. Drawdown of the first USD 30 million of the Facility is on favourable terms relative to the current market price of Ironbark shares notwithstanding that Ironbark will also grant Glencore certain offtake rights and may result in reduced financing options for the Citronen Project.
47. Drawdown of the Facility by more than USD 30 million will involve the issue of Glencore Convertible Notes under Tranche 2 on terms which confer a benefit to Glencore. The issue of notes under Tranche 2 will erode the benefits arising from Tranche 1 of the Facility.
48. The Directors of Ironbark have a duty to act in the best interests of Ironbark shareholders in contemplating the acquisition of target shares or assets. As such, any prospective offer to acquire shares or assets which has been developed by Ironbark should be structured and priced



in a manner which is value accretive to Ironbark and beneficial to the non-associated shareholders. This will include an evaluation of the advantages and disadvantages of the Facility drawdown outlined above as well as factors specific to each potential acquisition target.

49. We would expect such an evaluation to include the following matters:
- an assessment of whether the benefits of a potential market re-rating of Ironbark shares following the proposed acquisition outweigh any reduction in the potential for a future control transaction for Ironbark shares;
 - the level of draw down of the Facility (if any); and
 - the potential exposure to a fee of 1% of revenue arising from target acquisitions in the event that offtake rights for production from a target acquisition are not provided to Glencore.
50. Whilst there are a number of disadvantages associated with the Proposal, on balance we consider the advantages outweigh the disadvantages and consider the Glencore Convertible Note Agreements to be reasonable for the non-associated shareholders. Our conclusion has been heavily weighted by the fact that the Directors of Ironbark have full control to only draw down Tranche 1 of the Facility and seek conversion of the resultant Glencore Convertible Notes after 18 months from their date of issue.
51. As indicated above, Tranche 2 of the Facility provides additional option benefits to Glencore and Nyrstar which are dilutive to the interests of Ironbark shareholders. The draw down of Tranche 2 is under the control of the Directors and would only be done if it were advantageous to do so. However, the potential benefits to Ironbark from the additional draw down of funds to fund a prospective future acquisition cannot be evaluated as part of our assessment as the identity of any target is still to be finalised, the structure of an offer has not been finalised and the outcome is uncertain. If our reasonableness assessment were to be made only on the basis of a full draw down of the Facility, without recognition of potential offsetting benefits of an acquisition, then our opinion on the reasonableness of the Proposal would be different.



Structure of Report

52. The balance of this report is set out in the following sections.

- I Terms of the Glencore Convertible Note Agreements**
- II Basis for Our Evaluation of the Transaction**
- III Analysis of Ironbark**
- IV Impact of the Proposed Transaction**
- V Valuation of Ironbark Shares**
- VI Assessment of the Proposal**

Appendices

- A Declarations and Disclosures**
- B Sources of Information**
- C Financial Services Guide**
- D Technical Expert's Report**
- E Comparable Transaction Analysis**
- F Valuation of Conversion Rights**

Yours faithfully

A handwritten signature in dark ink, appearing to read 'Roger Port'.

Roger Port
Authorised Representative

A handwritten signature in dark ink, appearing to read 'Paul Hennessy'.

Paul Hennessy
Authorised Representative



I Terms of the Glencore Convertible Note Agreements

53. On 13 October 2011, Ironbark entered into interrelated agreements with entities wholly owned by Glencore comprising:
- A commercial agreement (including an agreed form of a global offtake agreement for future projects);
 - A convertible note subscription agreement;
 - A convertible note deed; and
 - Offtake agreements for concentrates from the Citronen Project.
54. The above agreements (including a subsequent amendment dated 21 October 2011 to the offtake agreement for lead concentrate) are collectively referred to as “the Glencore Convertible Note Agreements” for the purposes of this report.
55. Glencore will provide a USD 50 million convertible note facility to Ironbark and Glencore will be granted certain offtake rights over base metal production from Ironbark’s Citronen Project and any future production arising from any projects acquired in part from the issue of Glencore Convertible Notes under the Facility (or where these cannot be provided a fee of 1% of revenue from the sale of production not made available to Glencore). The Glencore Convertible Note Agreements are conditional upon approval by the non-associated shareholders of Ironbark.
56. Funds from the issue of Glencore Convertible Notes under the Facility are intended to be applied by Ironbark for investment purposes, but may with the consent of Glencore be used to provide working capital. Glencore Convertible Notes may only be issued with the prior consent of Glencore as to the target company or assets.
57. The Glencore Convertible Note Agreements provide access to funding in two tranches. The key terms of the Glencore Convertible Notes are as follows:
- Tranche 1:
 - principal amount of up to USD 30 million;
 - the loan carries interest at the USD LIBOR settlement rate plus 5% per annum which is payable on 31 March, 30 June, 30 September and 31 December in each year;
 - quarterly capital repayments commence 18 months from draw down;
 - maturity date of four years from the issue date; and
 - after 18 months, both Glencore and Ironbark have the right to convert the drawn down portion of the notes into ordinary voting shares at a conversion price of A\$0.42 per Ironbark share using then current foreign exchange rates. The conversion price is subject to adjustment in defined circumstances which would dilute the specified exercise price.



- Tranche 2 (to be issued only after Tranche 1 is fully drawn):
 - principal amount of up to USD 20 million;
 - the loan carries interest at the USD LIBOR settlement rate plus 5% per annum which is payable on 31 March, 30 June, 30 September and 31 December in each year;
 - quarterly capital repayments commence 18 months from draw down;
 - maturity date of four years from the issue date; and
 - after 18 months, Glencore has the right to convert the drawn down portion of the notes into ordinary voting shares at a conversion price of A\$0.50 per Ironbark share using then current foreign exchange rates. The conversion price is subject to adjustment in defined circumstances which would dilute the specified exercise price.
58. The redemption of the Facility, which is to commence 18 months from the date of issue, requires repayment of USD 3 million each quarter against all Glencore Convertible Notes on issue (allocated proportionately to the notes then on issue under Tranche 1 and Tranche 2).
59. The Glencore Convertible Notes will be secured against the assets or shares for which funds from their issue have been used in whole or in part to acquire. If shares have been acquired, the security is to be provided by way of an equitable mortgage over all shares in the target company held by Ironbark. If assets are acquired or Ironbark acquires 100% of a company, the security is to be a fixed and floating charge over all of the target company assets.
60. Provision of the Facility is conditional on Ironbark entering into offtake arrangements with Glencore for future base metal production:
- Establishment of the Facility will grant Glencore offtake rights for 35% of zinc concentrate production from the Citronen Project for a period of ten years from commencement of commercial mining operations and 35% of lead concentrate over the life of mine; and
 - Upon issue of Glencore Convertible Notes under the Facility, Glencore's offtake rights for zinc concentrate production from the Citronen Project will increase to 55% for the ten year period and 55% for lead concentrate production over the life of mine. Glencore will also become entitled to life of mine offtake rights associated with Ironbark's production from any acquired projects partly funded by the Glencore Convertible Notes. If such rights are not provided, Glencore is entitled to a fee of 1% of revenue realised from the production sold for which offtake rights are not provided.
61. Under a pre-existing agreement with Glencore dated April 2007 (the "Marketing Agency Agreement"), Glencore holds the exclusive rights to sell all commercial production from the Citronen Project for a minimum of six years from production start-up and to receive a fee of USD 10 per tonne of concentrate sold. The Marketing Agency Agreement was entered into pursuant to an agreement with Glencore under which Glencore subscribed for 12.5 million shares at an issue price of \$0.50 each in 2007. The Marketing Agency Agreement will continue following the Proposal, but concentrate from the Citronen Project provided to Glencore under



the Glencore Convertible Note Agreements is exempted from the agency fee. The Marketing Agency Agreement also grants Glencore the right to appoint one non-executive Director to the Board of Ironbark.

62. Under the Glencore Convertible Note Agreements, Glencore is granted the right to appoint at least three Directors to the Board of Ironbark upon issue of a Glencore Convertible Note, with such directors to comprise one third of the aggregate number of directors excluding independent and non-executive directors for so long as Glencore Convertible Notes are on issue. The Glencore Director appointed under the Marketing Agency Agreement will be counted as one of the Directors which Glencore has the right to appoint under the Proposal.
63. The conversion prices applied to each tranche of the Glencore Convertible Notes will be subject to adjustment for certain defined events including dividend distributions made by Ironbark, bonus share issues, issues of shares more than 5% below market price or conversion price, consolidation or subdivision of shares and in the circumstances of share redemptions above a minimum permissible threshold. The Glencore Convertible Notes will also become convertible and be subject to reduction in conversion price of up to 10% in the event of a change of control of Ironbark.
64. The Glencore Convertible Note Agreements also provide rights to Glencore in the event of default by Ironbark (including in some circumstances the Glencore Convertible Notes becoming due for immediate repayment). In the event that additional or lawfully non-avoidable tax or duty imposts arise in respect of Glencore Convertible Notes, Ironbark is to make additional payments so as to provide an equivalent payment to Glencore as if such additional taxes or duties had not been incurred. Conversely, Ironbark may seek to redeem the Glencore Convertible Notes in the event of adverse changes in the tax treatment of the convertible notes.
65. The Glencore Convertible Note Agreements also place restrictions on the ability of Ironbark to dispose of all or part of a direct or indirect interest in the Citronen Project without first procuring agreement that the acquirer will bound by the terms of the agreement under which Glencore is entitled to offtake from the Citronen Project.



II Basis for Our Evaluation of the Transaction

Purpose of the Report

66. Section 606 of the Corporations Act (“s606”) provides a general prohibition to an entity increasing its relevant interest in the issued voting shares of a listed company to greater than 20%. Glencore holds approximately 12% of the issued share capital of Ironbark as at the date of this report.
67. The issue of the Glencore Convertible Notes will not by itself increase Glencore’s voting shares in Ironbark. However, in the absence of further share issues by Ironbark, conversion of the Glencore Convertible Notes into ordinary shares is highly likely to result in Glencore’s voting interest in Ironbark increasing to above the threshold of 20% allowed under s606.
68. There are various exemptions to this prohibition including those set out in Section 611 of the Corporations Act (“s611”). Under item 7 of s611, an acquisition of the relevant interests in a company’s voting shares to greater than 20% is allowed if, at a general meeting, a majority of the non-associated shareholders pass an ordinary resolution approving the transaction. Australian Securities and Investments Commission (“ASIC”) Regulatory Guide 74: Acquisitions Agreed by Members states that shareholders should be given an analysis of whether the transaction is “fair and reasonable”. Such an analysis may be provided by the Directors of Ironbark not associated with the transaction, however it is market practice that such reports are usually prepared by an independent expert.
69. ASX Listing Rule 10.1 requires shareholder approval for the acquisition of a substantial asset from, or disposal of a substantial asset to, a substantial shareholder. Glencore has a relevant interest in at least 10% of the total votes attached to Ironbark’s voting securities and accordingly is regarded as a substantial holder. An asset is substantial if its value is 5% or more of the equity interests of Ironbark in its latest accounts lodged with the ASX. The ASX Listing Rule 19.12 definition of disposal includes using an asset as collateral. If the Glencore Convertible Notes are issued, Ironbark will grant Glencore security over substantial assets. Further, the grant of offtake rights or a fee equivalent to a 1% share of revenue where such rights are not provided may also be considered a disposal of a substantial asset. Accordingly, approval of Ironbark’s non-associated shareholders is also being sought by the Directors of Ironbark for the Glencore Convertible Note Agreements under ASX Listing Rule 10.1.
70. ASX Listing Rule 10.10.2 requires that the notice of meeting under Listing Rule 10.1 include a report on the transaction from an independent expert. The report must state whether the transaction is fair and reasonable to the holders of Ironbark’s ordinary securities whose votes are not to be disregarded in respect of the transaction.



71. We have been commissioned by the Directors of Ironbark to prepare an independent expert's report to assist shareholders of Ironbark not associated with Glencore ("non-associated shareholders") to assess whether to approve the proposed Glencore Convertible Note Agreements. This report has been prepared solely to assist Ironbark's non-associated shareholders in considering the Proposal for the purposes of s611 and Listing Rule 10.1. This report is to be attached to the notice of meeting being sent to Ironbark shareholders in relation to the Proposal.

Our Approach

72. ASIC Regulatory Guide 111: Content of Expert Reports ("RG111") sets out guidelines for independent expert's reports prepared for the purpose of Section 611 of the Corporations Act. RG111 focuses on reports prepared for transactions under Chapters 5, 6 and 6A of the Act, but also provides relevant guidance for the purposes of ASX Listing Rule 10.10.2.
73. RG111 indicates that an expert should focus on the substance of the transaction rather than the legal mechanism used to effect the transaction. In our assessment of the terms of the Glencore Convertible Notes, we have considered the transaction as a whole including the terms of the interrelated agreements with Glencore upon which provision of the Facility is conditional. As such, our opinion extends to the Glencore Convertible Note Agreements collectively.
74. RG111 also guides experts considering a control transaction requiring shareholder approval under item 7 of s606 to analyse the transaction as if it were a takeover bid under Chapter 6 of the Corporations Act. We have considered whether the transaction should be regarded as a control transaction given that, subject to no significant adverse foreign exchange movements, Glencore would only secure an equity interest in Ironbark of up to 33% assuming full draw down of the Facility and conversion of all of the Glencore Convertible Notes without any further issue of equity by Ironbark in the intervening period. However, we consider that significant economic influence arises from other aspects of the Convertible Note Agreements such that the transaction should be evaluated as a control transaction.
75. We have given due consideration to relevant matters in other ASIC guidelines, including Regulatory Guide 112 (Independence of Experts).
76. Our independent expert's report has also been carried out in accordance with Accounting Professional and Ethical Standards Board 225 "Valuation Services".



Basis of Assessment

77. When assessing a control transaction for a takeover bid, RG 111.9 to 111.11 states that an assessment of whether a transaction is fair and reasonable requires analysis of each criterion individually. It also outlines the following definitions of 'fair' and 'reasonable':
- *"An offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. This comparison should be made assuming 100% ownership of the 'target' and irrespective of whether the consideration is scrip or cash."*
 - *"An offer is 'reasonable' if it is fair. It might also be 'reasonable' if, despite being 'not fair', the expert believes that there are sufficient reasons for security holders to accept the offer in the absence of any higher bid before the close of the offer."*
78. In evaluating the fairness of the Glencore Convertible Note Agreements, we have considered the substance of the transaction as a whole. This has involved comparing the value of the securities granted to Glencore and other rights provided to Glencore by Ironbark against the value of the consideration receivable from Glencore. Given the purpose of the report, our fairness assessment has been made assuming the Facility is fully drawn. RG111 requires that the fairness comparison be made by valuing Ironbark on the basis of 100% ownership irrespective of the interest which Glencore may obtain under the transaction. Our assessment of the Proposal considers whether a premium for control is incorporated into the overall transaction.
79. Fair market value is defined as the price which would reasonably be negotiated by an informed, willing but not anxious purchaser and an informed, willing but not anxious seller acting at arm's length and within a reasonable timeframe.
80. Our assessment of the value of Ironbark's ordinary shares has been based both on an analysis of Ironbark's traded share price and an assessment of the underlying value of Ironbark's net assets. The underlying assessment of Ironbark's mineral assets has been undertaken primarily by reference to a value per contained metal in resources implied by transactions for other base metal projects. We have also considered preliminary conceptual project feasibility modelling of the Citronen Project which has been undertaken by Ironbark under a range of development scenarios and potential operating parameters as a cross check to the values derived.
81. Our assessment of the value of the consideration provided by Glencore under the Glencore Convertible Note Agreements has been based on the effective nature of the respective tranches provided under the Facility.
82. It is not possible to place a definitive value on the offtake rights provided to Glencore under the Glencore Convertible Note Agreements due to the lack of a definitive mine plan for the Citronen



Project at the date of this report and the unspecified nature of future targets to be acquired in whole or in part from funds provided under the Facility.

83. In evaluating the reasonableness of the Glencore Convertible Note Agreements, we have considered other significant factors for non-associated shareholders. These include the terms of the Glencore Convertible Notes and the offtake agreement, the benefits of the provision of new capital to exploit additional business opportunities, other significant security holdings in Ironbark and the likelihood of alternative proposals being received on better terms for the non-associated shareholders.

Reliance on Technical Expert

84. Ravensgate Minerals Industry Consultants (“Ravensgate”) were engaged to provide a technical expert’s report (the “Ravensgate Technical Expert’s Report”) for use and reliance by us in the preparation of our independent expert’s report. The assessment of the resource potential has been carried out in accordance with the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports, 2005 Edition (the “Valmin Code”).
85. We are satisfied that:
- Ravensgate has appropriate qualifications, industry experience and competence to conduct its assessments;
 - the methodologies used in its valuations are consistent with generally accepted industry practice; and
 - the Ravensgate report contains sufficient information to support the conclusions drawn.
86. We note that Ravensgate has been involved in the provision of geological modelling and independent review services to Ironbark in relation to the Citronen Project. Notwithstanding these services, we consider that Ravensgate is sufficiently independent of Ironbark and Glencore for us to rely upon their work for the purposes of our report.

Sources of Information

87. In preparing this report, we have used and relied on the information set out in Appendix B and representations made by Ironbark’s management.
88. We have conducted checks, enquiries and analyses of the information provided to us which we regard as appropriate for the purposes of this report. Based on these procedures, we believe that the information used as the basis for forming the opinions in this report is accurate, complete and not misleading and we have no reason to believe that material information relevant to our



report has been withheld. Whilst our work has involved an analysis of financial information and accounting records, it does not constitute an audit or review of Ironbark in accordance with Australian Auditing Standards, and accordingly no such assurance is given in this report.

89. Our assessment has been made as at the date of our report. Economic conditions, market factors and changes in exploration or development potential may result in the report becoming outdated. We reserve the right to review our assessments and, if we consider it necessary, to issue an addendum to our report, in the light of any relevant material information which subsequently becomes known to us prior to the approval or rejection of the Proposal.

General Advice

90. In preparing this report, we have considered the interests of the non-associated shareholders of Ironbark taken as a whole. This report contains only general financial product advice and does not consider the personal objectives, financial situation or needs of individual shareholders of Ironbark. An individual's decision in relation to approving or not approving the Proposal may be impacted by the individual's particular circumstances and shareholders may wish to obtain personal financial product advice from their financial adviser.

Scope Exclusions

91. This report has been prepared solely for the purpose of assisting existing non-associated shareholders of Ironbark to consider whether or not to approve the Proposal. This report has not been prepared to provide information to parties considering the purchase or sale of securities in Ironbark. Accordingly, we do not assume any responsibility or liability for any losses suffered as a result of the use of this report contrary to the provisions of this paragraph.



III Analysis of Ironbark

Profile of Ironbark

Background

92. Ironbark is a Perth-based base metal exploration and development company. The Company has been listed on the ASX since August 2006 and changed its name from Ironbark Gold Limited to Ironbark Zinc Limited in November 2009 to reflect a change in the company's focus towards zinc. The primary focus of the Company's activities over the past four years has been exploration and evaluation of its 100% owned Citronen Project, a major undeveloped zinc deposit in Greenland.
93. Whilst Ironbark's principal asset and focus is the Citronen Project, the Company also holds a number of other early stage exploration projects in Australia and Greenland including the following:
- Captains Flat Base Metal/Gold Project in NSW, Australia (25% interest). The project is under a joint venture with NSW Base Metals Pty Ltd (a subsidiary of Glencore);
 - Belara Base Metal/Gold Project in NSW, Australia (100% interest reducing to 25%). Ironbark has entered into a farm out agreement with Global Mineral Resources Limited;
 - Fiery Creek Base Metal and Gold Project in NSW, Australia (100% interest);
 - Mestersvig Lead/Zinc Project in Greenland (100% interest); and
 - Washington Land Base Metal Project in Greenland (100% interest).

Overview of the Citronen Project

94. The Citronen Project is located in North Greenland and forms part of the Franklinian Basin geological unit. The Citronen Project is approximately 775 km south of the North Pole. A map showing the location of the Citronen Project and Ironbark's other exploration projects in Greenland is set out below.



Source: Ironbark Investor Presentation May 2009

95. Working and operating conditions at the Citronen Project have similarities to mine sites in northern Canada. The area is subject to permanent frost with a very dry climate and only minor rainfall. The project adjoins a protected deep water fjord with minimal tidal variation. Access to the site is by air or boat only. During winter, pack ice hinders access to the Citronen Project by boat. Due to limited infrastructure on site and climatic conditions, exploration at the Citronen Project is currently constrained to a 3-4 month period from June to September.
96. The Citronen Project comprises a relatively recent zinc discovery with initial higher grade zinc mineralisation identified in 1993 by Platinova A/S (a company partially owned by the Government of Greenland). The Citronen Project was the subject of four further seasonal campaigns of investigation by Platinova A/S over the period to 1998 resulting in over 32,000 metres of diamond core drilling over 148 drill holes. However, further exploration by Platinova A/S ceased after that time due to poor prevailing metal prices.



97. Ironbark acquired the Citronen Project in 2007 and recommenced activities on site to confirm and explore the extent of mineralisation. The Company also commenced studies to evaluate mining and processing options and is currently actively advancing a definitive feasibility study for the Citronen Project.

Exploration and Commercialisation Activities

98. The work undertaken by Ironbark since acquisition of the Citronen Project has included:

- Securing further exploration tenements in the region;
- Undertaking sampling programs on previously untested Platinova A/S drill core intervals;
- Establishment of a 40 man camp and the purchase and transfer to site of equipment for seasonal drilling campaigns;
- Undertaking further diamond drilling for further resource definition and infill drilling of identified higher grade mineralisation (an additional 25,729 metres has been drilled over 91 drill holes since acquisition by Ironbark);
- Collection of ore samples for metallurgical test work;
- Completion of a pre-feasibility study;
- Advancement of process flowsheet and mine plan designs;
- Undertaking environmental surveys and assessments; and
- Commencement of a bankable feasibility study.

99. The main focus has been on three zones of higher grade mineralisation: the Esum, Beach and Discovery zones. These form the basis of the most recent stated resource for the Citronen Project as at December 2010 (as set out below). High grade intercepts have also been reported from the 2011 drilling campaign and in other zones including the Trilobite Valley and Esum zones. These have not yet been included in an updated resources assessment due to the analysis of the 2011 drilling not having been completed and where drilling intercepts from prior years lack sufficient density for JORC classification.

100. A summary of the December 2010 JORC compliant resource identified at the Citronen Project is set out below.

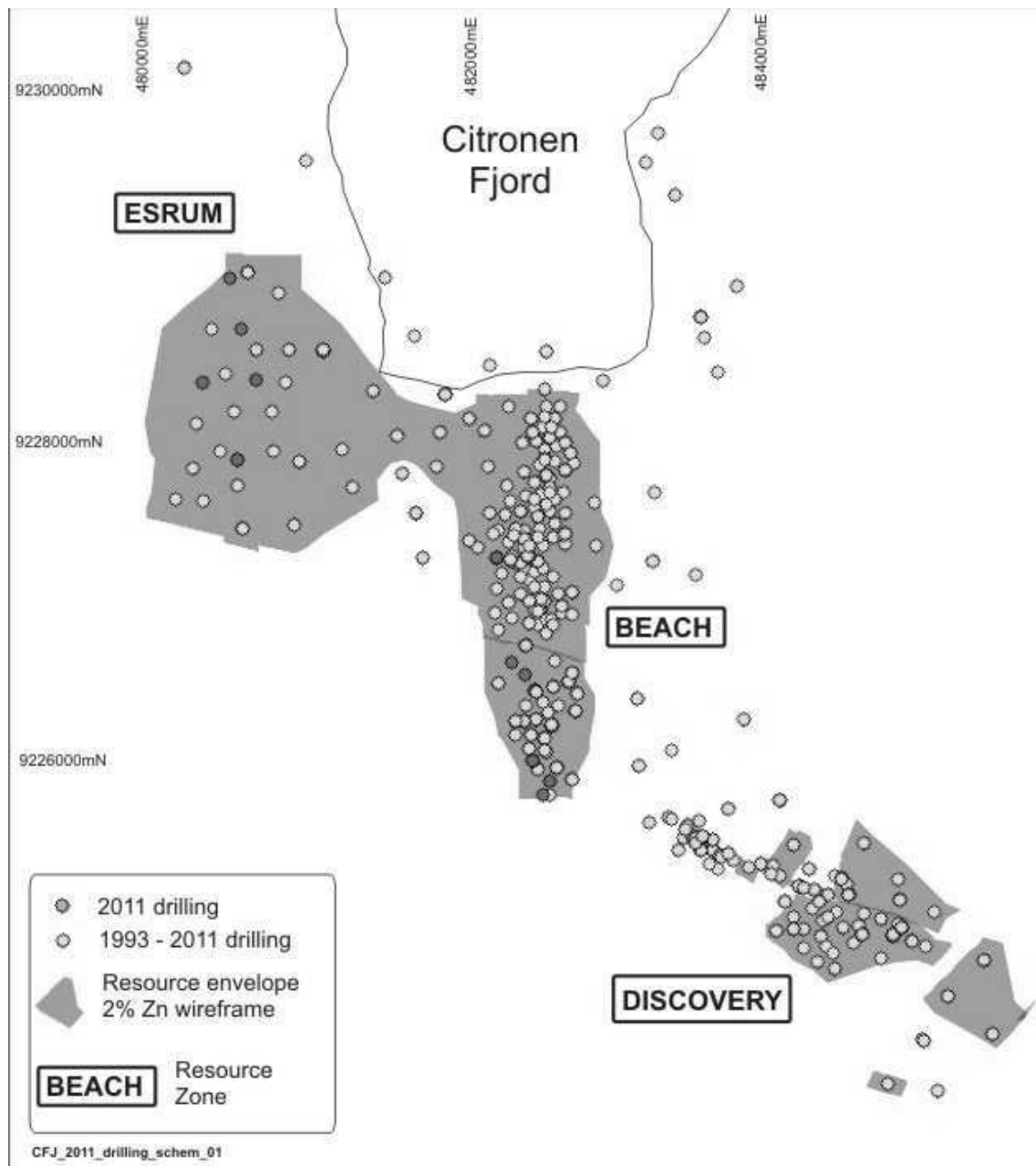
Resource Category	Resource category at 3.0% Zn cut-off ¹				Resource category at 2.0% Zn cut-off ²			
	Mt	Zn %	Pb %	Zn + Pb %	Mt	Zn %	Pb %	Zn + Pb %
Measured	15.0	5.8	0.5	6.3	33.2	3.8	0.5	4.2
Indicated	19.3	5.1	0.6	5.7	52.2	3.7	0.5	4.2
Inferred	25.5	5.3	0.5	5.8	47.2	3.3	0.4	3.7
Total	59.9	5.3	0.5	5.9	132.6	3.6	0.5	4.0

¹ Using inverse distance squared (ID²) interpolation and reported at a 3.0% Zn cut-off

² Using ordinary Kriging interpolation and reported at a 2% Zn cut-off

Source: Ironbark ASX Announcement, 'Citronen Resource Estimate Update 2010', 22 December 2010

101. A summary of the location of drilling and resource classification for the Citronen Project is set out below.



Source: Ironbark



Project Status

102. Engineering aspects for the Citronen Project have been advanced during 2011, however work continues on optimisation of the proposed processing circuit and associated infrastructure. Ironbark is currently evaluating a number of alternative processing and mine infrastructure options. Wardrop, MT Højgaard (engineering contractors) and Metso Minerals (process flow sheets and metallurgy) have co-coordinated the study which also involved mining and processing engineers from Ironbark. This work is ongoing with China Nonferrous Metal Industry's Foreign Engineering and Construction Co. Ltd and Arccon (WA) Pty Ltd currently involved.
103. The feasibility study currently being undertaken is based on a proposed plant feed of 3 mtpa to produce in the order of 200,000 to 250,000 tonnes of zinc and 20,000 tonnes of lead concentrate per annum over the mine life. Current planning envisages underground mining of identified high grade zones. An indicative mine life of at least 15 years is anticipated although this life is contingent upon additional high grade resource definition. Concentrate production will vary depending on the ore grade mined. Actual mine life will depend upon future mineral prices and costs.

Financial Performance

	30 June 2009	30 June 2010	30 June 2011
A\$m	Audited	Audited	Audited
Loss before tax¹	(2.4)	(0.7)	(2.3)
Income tax benefit	0.3	0.1	-
Loss attributable to equity holders	(2.1)	(0.6)	(2.3)

Source: 2009, 2010 and 2011 Annual Report

1. Includes other comprehensive income/ (loss)

104. Ironbark's principal activity over the past four years has been exploration and evaluation of the Citronen Project. Exploration expenditure is capitalised on the balance sheet, with the general and administration expense and other corporate costs being reflected in the income statement.



Cash Flows

A\$m	30 June 2009 Audited	30 June 2010 Audited	30 June 2011 Audited
Net cash from operating activities	(0.3)	(0.8)	(1.0)
Cash flows from investing activities			
Payments for exploration and evaluation	(6.1)	(9.0)	(15.6)
Other purchases	(0.3)	(0.9)	(1.9)
Proceeds from sales	0.4	1.1	3.1
Net cash used in investing activities	(6.0)	(8.8)	(14.4)
Cash flows from financing activities			
Proceeds from issue of shares	-	22.3	11.5
Other financing activities	(2.7)	(0.1)	(0.6)
Net cash used in financing activities	(2.7)	22.2	10.9
Net increase/(decrease) in cash and cash equivalents	(9.0)	12.6	(4.5)
Cash and cash equivalents at beginning of financial year	13.3	4.3	16.9
Cash and cash equivalents at end of financial year	4.3	16.9	12.4

Source: 2009, 2010 and 2011 Annual Report

105. The principal cash movements over the past three years relate to exploration and evaluation at the Citronen Project and associated capital raisings to fund these expenditures. Ironbark has also continued to rationalise its other exploration interests and investments to increase its focus on core projects.
106. The proceeds from sales in 2011 relates to the partial sell down of Ironbark's interest in Waratah Resources Limited.
107. Ironbark's main capital raisings over the above period are summarised below:

Date	Number of Shares (m)	Issue price (A\$)	Amount Raised (A\$m)
08 Oct 2009	31.9	0.125	4.0
03 Dec 2009	20.9	0.125	2.6
03 May 2010	10.0	0.06	0.6
4/06/2010*	42.9	0.35	15.0
4/06/2010**	2.0	0.06	0.1
22 Nov 2010	48.0	0.24	11.5
	155.7		33.8

* Issued to Nyrstar in accordance with top up provisions of the Subscribers Rights Deed dated 28 September 2009

** Issued in accordance with Subscription Agreement with Nyrstar dated 30 March 2010



Financial Position

108. The financial position of Ironbark for the last three financial years is set out below.

A\$m	30 June 2009 Audited	30 June 2010 Audited	30 June 2011 Audited
Current assets			
Cash and cash equivalents	4.3	16.9	12.4
Other current assets	0.2	0.4	2.1
Total current assets	4.5	17.3	14.5
Non-current assets			
Exploration and evaluation expenditure	111.8	122.1	137.6
Other non-current assets	4.7	4.5	1.1
Total non-current assets	116.5	126.6	138.7
Total Assets	121.0	143.9	153.2
Current liabilities			
Trade and other payables	0.3	1.6	1.3
Total current liabilities	0.3	1.6	1.3
Non current liabilities			
Deferred tax liabilities	0.4	0.3	0.1
Total non-current liabilities	0.4	0.3	0.1
Total Liabilities	0.7	1.9	1.4
Net Assets	120.3	142.0	151.8
Equity			
Issued capital	74.2	96.8	107.7
Reserves	49.3	48.8	49.7
Accumulated losses	(3.2)	(3.6)	(5.6)
Total Equity	120.3	142.0	151.8

Source: 2009, 2010 and 2011 Annual Report

109. Ironbark's principal balance sheet item is capitalised exploration and evaluation expenditure. \$133.1 million of the exploration and evaluation expenditure capitalised as at 30 June 2011 relates to the Citronen Project. \$94.4 million of the carrying value of the Citronen Project relates to accounting entries raised on the original acquisition in 2007.
110. The Citronen Project was acquired through a cash payment of \$6.0 million, the issue of 40 million ordinary Ironbark shares (post share split)¹, the issue of 80 million options over Ironbark shares at an exercise price of \$0.30 per share (post share split) and the provision of a 2.5% net smelter return royalty. The accounting for the acquisition capitalised the purchase price at \$94.4 million. A significant value (\$88.4 million) was ascribed to the Ironbark shares and options due to the more buoyant economic circumstances at the time. We note that

¹ Ironbark undertook a 5 for 1 share split in July 2007



approximately half of the purchase consideration was attributable to the options granted over Ironbark shares and that ultimately over 98% of these options lapsed without being exercised.

111. The increase in capitalised expenditure since acquisition is in line with further drilling at the Citronen Project and work associated with the feasibility study.

Capital Structure

112. Ironbark currently has three major shareholders which together hold 55.04% of the issued share capital, but none of which is in a position to control the Company. Ironbark's five largest shareholders as at 27 October 2011 are set out below.

Rank	Name of Holder	Shares Held (m)	Shareholding %
1	Nyrstar Group	97.7	26.52
2	L1 Capital Pty Ltd	61.0	16.55
3	Glencore International AG	44.1	11.97
4	Camelot Trust Corp Ltd	15.6	4.22
5	Downes Jonathan	8.4	2.28
	Remaining shares	141.6	38.46
Total		368.4	100.0

Source: Ironbark, Security Transfer Registrars, ASX Announcements

113. Nyrstar Group is Ironbark's largest shareholder with an interest of 26.52%. Nyrstar is a large global zinc and lead smelting company based in Belgium, which also operates a number of lead and zinc mines. It is the world's largest producer of zinc metal and alloys with zinc metal production of 1.1 mt in 2010. The group has acquired interests in a number of lead and zinc mines over the past two years as part of its stated strategy to expand into mining and extend upstream integration.
114. Nyrstar subscribed to a \$6.6m placement by Ironbark in September 2009 at \$0.125 per share. As part of the placement:
- Nyrstar also secured a life of mine offtake agreement for 35% of production from the Citronen Project.
 - Nyrstar holds a non-dilutive pre-emptive right that allows it to participate on a pro-rata basis in any future capital raisings in order to maintain its percentage shareholding interest.
 - A representative of Nyrstar joined the Board of Ironbark.
115. In June 2010, Nyrstar was issued a further 42.9m shares at \$0.35 per share, which raised \$15.0m to fund activities at the Citronen Project.



116. L1 Capital Pty Ltd currently holds an interest of 16.55%. L1 Capital is an Australian managed fund with a focus on ASX listed stocks. L1 Capital has increased its holding in Ironbark over the past nine months, with the average cost of its investment at \$0.258 per share.
117. Glencore is Ironbark's third largest shareholder. Glencore has an 11.97% interest in Ironbark and has held an interest in Ironbark since originally subscribing for 12.5 million shares in 2007. Glencore has further increased its shareholding in Ironbark through share purchases. Glencore is a global metals trading house which sold approximately 2.4mt of zinc concentrate in 2010. As part of an agreement associated with the 2007 share issue, Glencore has the right to appoint a Director to the Board of Ironbark and has exclusive marketing agency rights for all concentrate production from the Citronen Project.
118. Glencore also has a commercial agreement with Nyrstar for the sale and marketing of commodity grade zinc and lead produced by Nyrstar's primary smelters. The agreement runs to the end of 2018. Glencore also holds a direct equity interest of 4.58% in Nyrstar and is its largest shareholder. Notwithstanding these commercial arrangements, Nyrstar and Glencore have separate corporate and investment interests.

Options

119. Ironbark has just over 10 million share options on issue. These mostly comprise options held by directors and employees which were granted as part of remuneration.

Number of Options Outstanding (m)	Exercise Price A\$	Expiry Date	In the Money ¹
0.50	\$0.85	22 Nov 2012	No
0.20	\$0.20	26 Nov 2012	Yes
9.05	\$0.45	16 Nov 2013	No
0.50	\$0.35	16 Nov 2013	No

Source: Ironbark Appendix 5B: Mining exploration entity quarterly report 30 September 2011

1. Based on Ironbark's share price as at the date of this report



Share Price Analysis

120. Ironbark's share price has been relatively volatile since listing in August 2006.



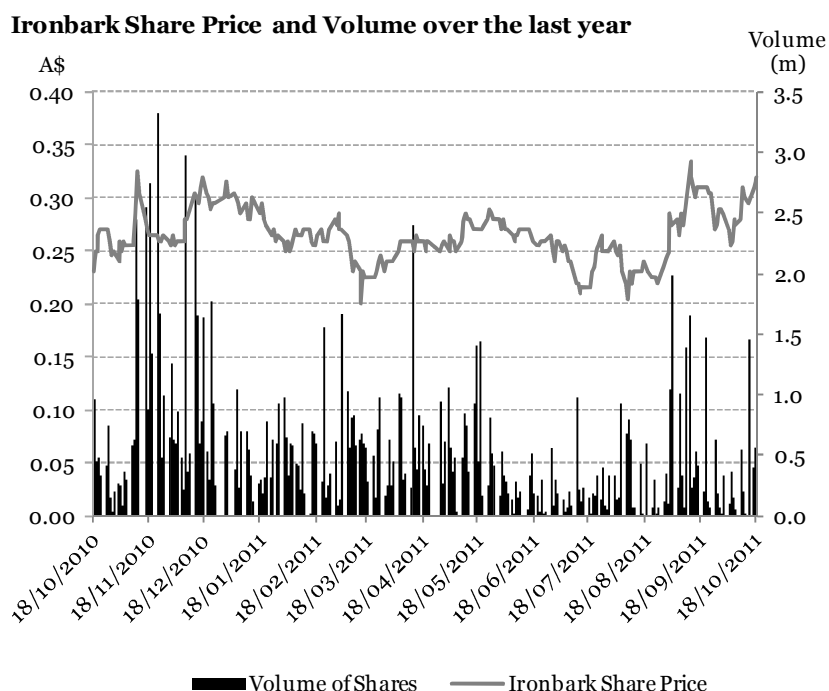
Note: the Ironbark share price history has been adjusted for a 5 for 1 share split in 2007

121. Significant events which have impacted Ironbark's share price over this period are outlined below.

1. Ironbark announced the proposed purchase of the Citronen Project in March 2007, secured shareholder approval to the purchase in April 2007 and completed a \$25 million capital raising in May 2007.
2. During 2007 zinc prices reached an historical high of USD 1.9/lb (USD 4,202/t). However, zinc prices fell to USD 0.47/lb (USD 1,046.8/t) in December 2008 due to the global financial crisis but have since recovered to an average of USD 1.00/lb over the past 12 months.
3. Ironbark has released favourable drilling results and upgraded resource estimates since commencement of its drilling programs at Citronen.
4. In March 2008, Glencore increased its then holding in Ironbark to 19.8% by the purchase of 29 million shares at an average price of 71 cents through off market purchases.
5. In October 2009 Nyrstar secured a 19.9% interest in Ironbark through a share placement at 12.5 cents (with non-dilute rights) and was granted partial offtake rights to production from Citronen. Nyrstar's interest in Ironbark was further increased in June 2010 through a placement of 42.85 million shares at 35 cents to raise \$15 million.



122. The more recent trading history of Ironbark's shares over the last twelve months is represented in the graph below.



123. The share price has traded in the range of 20 cents to 30 cents for most of the period since October 2010. The volume weighted average price ("VWAP") of Ironbark shares for various periods up to 12 October 2011 (the last trading day before announcement of the Proposal) is set out below.

Trading periods	High A\$	Low A\$	VWAP A\$	Cumulative volume traded (m)	% of issued capital
12 October 2011	0.30	0.30	0.300	0.0	0.0%
1 month	0.33	0.25	0.292	5.9	1.6%
3 month	0.34	0.21	0.267	21.9	5.9%
6 month	0.34	0.21	0.265	46.3	12.6%
12 month	0.34	0.19	0.268	135.9	38.0%

Source: Bloomberg and PwC analysis

124. The more recent spike in the share price to \$0.34 during early September 2011 was in part influenced by a speculative press article around that time concerning Glencore's future intentions for Ironbark.



IV Impact of the Proposed Transaction

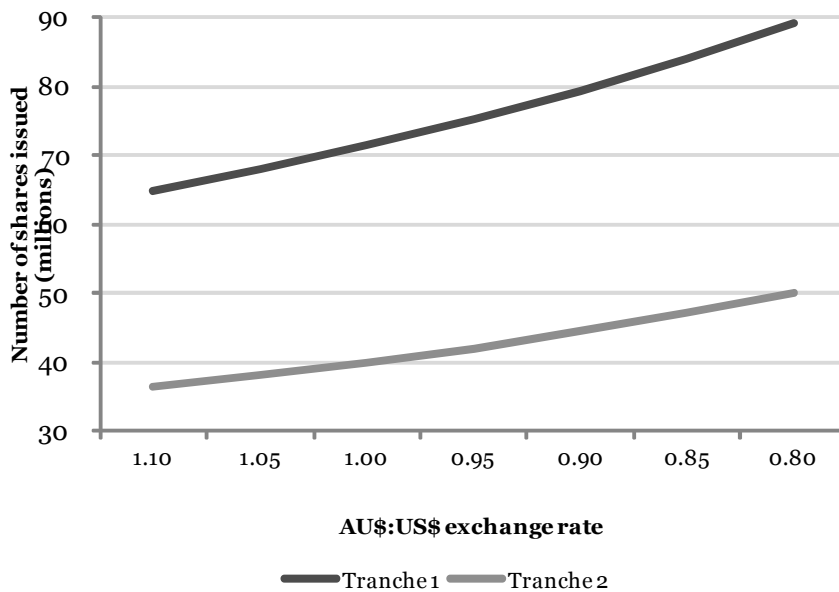
Impact on the Financial Position of Ironbark

125. The establishment of the Facility will not directly impact the financial position of Ironbark until the notes are issued. The terms of the Glencore Convertible Note Agreements reflect the principal use of the funds raised from the issue of Glencore Convertible Notes for the acquisition of shares or assets (with the target shares or assets having first been consented to by Glencore).
126. Whilst Ironbark has identified a list of potential targets, no discussions have been held with potential targets and none of these has been formalised into a bid or proposal. The purchase price for such assets or shares has not yet been determined and the success or otherwise of any proposed acquisition will be dependent upon agreement with and acceptance by the vendors. If the target comprises shares, there is no assurance as to the level of acceptance. The level of funding for the acquisition of target shares or assets which is sourced from the Facility will also depend upon the nature of the transaction. Depending on the scale of the target, the target acquisition may in part be funded through the issue of Ironbark shares in conjunction with funds raised through the issue of Glencore Convertible Notes.
127. Because of the uncertainties highlighted above in relation to the draw down and application of funds to a future unspecified acquisition, it is not possible to reflect the impact of the Glencore Convertible Notes on the financial position of Ironbark. The draw down of funds will not directly improve Ironbark's liquidity position as they will be invested in target shares or assets, but if fair value is paid for the target shares or assets on their acquisition, a corresponding increase in Ironbark's gross assets will be reflected. Depending on the scale of the purchase and nature of the consideration offered, further Ironbark securities may be issued directly to vendors of the assets or to raise additional funds for such a purchase.

Impact on Ironbark's Current Shareholder Mix and Key Shareholders

128. The Glencore Convertible Note Agreements will only impact Ironbark's shareholder profile upon conversion of any Glencore Convertible Notes issued under the Facility. The earliest conversion date for the Glencore Convertible Notes is 18 months from the date of issue. The quantity of Ironbark shares into which the Glencore Convertible Notes may be converted will depend upon the exchange rate between the US dollar and the Australian dollar at the date of conversion. We have set out below the potential number of Ironbark shares into which each tranche of the Glencore Convertible Notes may be converted under various exchange rates at the date of conversion (assuming the Facility is fully drawn).

Potential number of Ironbark Shares to be issued under various A\$:US\$ exchange rates

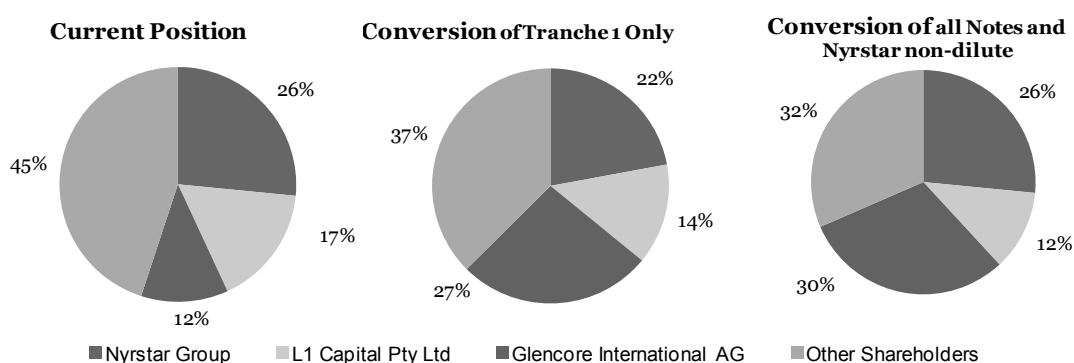


Source: Bloomberg and PwC Analysis

129. It is not possible to show the actual number of shares into which the Glencore Convertible Notes would be converted as the conversion date is not known and the future exchange rate between the Australian dollar and the US dollar will depend upon future events which are not certain.
130. For the purposes of our evaluation, we have assumed immediate draw down of both tranches and conversion of the Tranche 1 Glencore Convertible Notes to ordinary shares after a period of 18 months at an exchange rate equivalent to the current forward contract rate of exchange 18 months from the date of our report. We have assumed that conversion of the Glencore Convertible Notes will occur at this time because if the securities are out of the money, Ironbark is likely to force conversion of Tranche 1 and if the securities are in the money, we consider it is reasonable to believe that Glencore will seek conversion to avoid loss of value through the progressive redemption of Glencore Convertible Notes which will commence from this date. Ironbark has no rights to force conversion of Tranche 2 and the actions of Glencore will be influenced by the Ironbark share price at that time.
131. Under the Glencore Convertible Note Agreements, the conversion prices of \$0.42 and \$0.50 per Ironbark share are also subject to adjustment for certain specified dilutive events. For the purposes of our assessment we have assumed that none of these events will occur.



132. Using the above assumptions and the 18 month forward rate of US\$0.966 to one Australian dollar, Tranche 1 of the Facility (USD 30 million) would be convertible to 74.0 million ordinary shares and Tranche 2 of the Facility (USD 20 million) would be convertible to 41.4 million ordinary shares. We have assumed conversion of Tranche 2 would occur 18 months from the date of issue for the purposes of our evaluation.
133. The non-dilute rights held by Nyrstar will apply to the shares to be issued to Glencore upon conversion of the Glencore Convertible Notes. Nyrstar currently holds 26.52% of Ironbark's issued share capital. Assuming no change in Nyrstar's interest in Ironbark up to conversion of the Glencore Convertible Notes and using the above assumed conversion shares, the non-dilute rights held will provide Nyrstar with the option (but not the obligation) to subscribe for up to 26.7 million Ironbark shares at 42 cents upon conversion of Tranche 1 and for up to 14.9 million shares at 50 cents if Glencore elects to convert Tranche 2 into Ironbark shares.
134. It is not possible to predict the Ironbark share price at the time of exercise and accordingly whether Nyrstar will seek to be issued with further Ironbark shares. It is rational to assume that if the share price at this time is above 42 cents, Nyrstar will exercise its rights in relation to Tranche 1 and if Glencore has acted rationally to convert Tranche 2, then this will be because the share price is above 50 cents and Nyrstar will do likewise.
135. We have set out below a comparison of the current shareholding mix in Ironbark and the shareholding mix in the event that (i) only Tranche 1 of the Facility is converted into ordinary shares (with no election by Nyrstar to participate) and (ii) all Glencore Convertible Notes under both tranches were converted and Nyrstar elects to be issued shares at the same price.





Impact on the Citronen Project Off-take

136. The timing and level of concentrate production from the Citronen Project are both uncertain and dependent upon development of the project, the scale of the processing facilities, grade of ore mined and mineral recovery. On the basis that the feasibility studies for the proposed operations indicate that ore processing is likely to be at the rate of 3 mtpa, concentrate production is likely to be between 200,000 and 250,000 tonnes each year.
137. Under existing agreements, Nyrstar is entitled to 35% of annual concentrate production over the life of the mine and Glencore is entitled to a USD 10 per tonne agency fee for a minimum of six years from commencement of commercial production.
138. If the Proposal is approved, Glencore will become entitled to 35% of offtake from the Citronen Project upon establishment of the Facility and this entitlement will increase to 55% upon the issue of any notes under the Facility. The term of the offtake agreement for zinc concentrate is 10 years from commencement of production. The lead concentrate offtake rights extend over the life of the mine.

Company	Citronen Concentrate Offtake		
	Current Position	Upon Establishment of Facility	Upon Drawdown of Facility
Nyrstar Group	35%	35%	35%
Glencore International AG	0%	35%	55%
Other	65%	30%	10%
Total	100%	100%	100%

Source: PwC Analysis

139. The offtake agreement with Glencore appears to be drawn up in accordance with normal commercial principles and terms for such arrangements. However, the offtake rights will have added value to Glencore in a supply constrained environment and limits Ironbark's ability to contract offtake with other parties. Under the Proposal, production supplied to Glencore will be exempted from the agency fee which would otherwise be payable under the Marketing Agency Agreement.



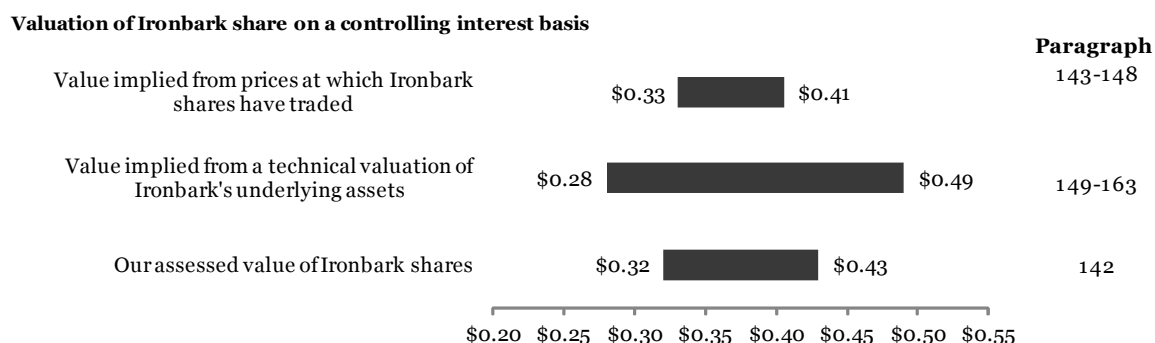
V Valuation of Ironbark Shares

Summary of our Valuation Assessment

140. We have assessed the value of Ironbark shares on a controlling interest basis to be in the range of \$0.32 to \$0.43 per share. We have formed this view primarily by considering:

- The prices and volumes at which shares in Ironbark have traded on the ASX and premia for control which have been evidenced by transactions in the mineral sector in recent periods; and
- The underlying value of assets held by Ironbark including the independent technical valuation of Ironbark's mineral assets which has been undertaken by Ravensgate for the purposes of this report.

141. The valuation ranges from each of these approaches is summarised below:



142. In our selection of a valuation range for Ironbark's shares, we have been mindful that the technical valuation and resource based comparison of Ironbark's underlying assets does not reflect the results of the most recent drilling program for the Citronen Project as these have not been reflected in an updated JORC compliant resources statement, whereas the Ironbark share price may be reflecting some uplifted value for recent drilling intersects which have been announced by Ironbark. We have also limited the upper bound of the asset based assessment due to the operating parameters associated with the location of the Citronen Project and high level scenario modelling which we have undertaken on the Citronen Project.

Value Implied from Ironbark Share Prices

143. We have considered the value of Ironbark shares implied from market prices over the past 12 months. We have also had regard to recent share issues by Ironbark and the prices at which L1 Capital has recently acquired a 16.6% shareholding in the Company.



144. The VWAP of Ironbark shares has been relatively consistent over the past twelve months at between \$0.26 and \$0.27 per Ironbark share. We note that the recent prices of Ironbark shares may have been influenced by takeover speculation following a press article in early September 2011 and announcements made by Ironbark in relation to both the Citronen Project and the Captains Flat project. The VWAP and share price analysis below is prior to announcement of the proposed Transaction and an update on the status of the Citronen Project.

Trading periods	High A\$	Low A\$	VWAP A\$	Cumulative volume traded (m)	% of issued capital
12 October 2011	0.30	0.30	0.300	0.0	0.0%
1 month	0.33	0.25	0.292	5.9	1.6%
3 month	0.34	0.21	0.267	21.9	5.9%
6 month	0.34	0.21	0.265	46.3	12.6%
12 month	0.34	0.19	0.268	135.9	38.0%

Source: Bloomberg and PwC analysis

145. Ironbark undertook a capital raising of \$11.5 million in November 2010 through the issue of 48 million shares at \$0.24 to institutional and sophisticated investors. Whilst the placement was oversubscribed, we note that Nyrstar did not exercise its rights to subscribe for shares at the same price and its interest in Ironbark was diluted from 30% to 27%.
146. L1 Capital has accumulated an equity holding of 16.6% in Ironbark since November 2010. This shareholding was acquired at an average price of \$0.258 per share. The most recent acquisition of 458,000 shares (1% of the issued share capital) by L1 Capital took place in early September 2011 at an average price of \$0.266 per Ironbark share.
147. We consider that the above measures (and in particular the purchase price of shares by L1 Capital and more recent favourable announcements in relation to Ironbark's exploration projects) support a current minority interest value for Ironbark shares of between \$0.265 and \$0.29.
148. Empirical studies of takeover premia support a control premium in the range of 20% to 40% and the average takeover premium for mining companies over recent years has exceeded 30%. Accordingly, we have applied a premium to the minority interest share values to derive a value for Ironbark shares on a controlling interest basis. Having regard to recent high levels of takeover premia for mining companies, we have chosen to apply a control premium in the range of 25% to 40% to the minority interest value of Ironbark shares to determine a controlling interest value for Ironbark shares. The implied controlling interest value of Ironbark shares determined on this basis falls in the range of \$0.33 to \$0.41 per Ironbark share.



	Low	High
Minority Interest Share Value	\$0.265	\$0.290
Control Premium	25%	40%
Implied Controlling Interest Value	\$0.331	\$0.406

Valuation of Shares in Ironbark based on Underlying Assets

149. The value of an Ironbark share based on a proportionate interest in Ironbark's underlying assets falls in the range of \$0.28 to \$0.49 as set out below.

Valuation of Ironbark	Book Value 30 June 2011 Audited	Valuation range	
A\$m		Low	High
Current assets			
Cash and cash equivalents (Note 1)	12.4	12.0	12.0
Other current assets	2.1	2.1	2.1
Total current assets	14.5	14.1	14.1
Non-current assets			
Exploration and evaluation expenditure	137.6	89.1	166.9
Other non-current assets	1.1	1.0	1.1
Total non-current assets	138.7	90.1	168.0
Total Assets	153.2	104.2	182.1
Current liabilities			
Trade and other payables	1.3	1.3	1.3
Total current liabilities	1.3	1.3	1.3
Non current liabilities			
Deferred tax liabilities	0.1	-	-
Total non-current liabilities	0.1	-	-
Total Liabilities	1.4	1.3	1.3
Net Assets	151.8	102.9	180.8
Shares on issue	368.4	368.4	368.4
Value per share	\$0.41	\$0.28	\$0.49

Source: 2011 Annual Report and Ravensgate Independent Technical Valuation

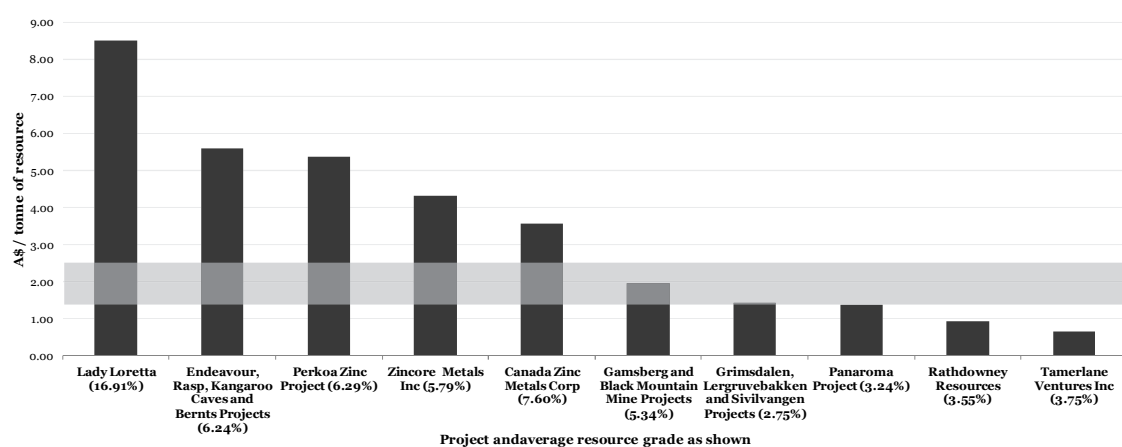
Note 1 - Cash and cash equivalents have been reduced by the net estimated outflow for administrative costs between 30 June 2011 and the date of this report.



150. Ironbark has minimal assets and liabilities other than its mineral assets and cash balances. We have adopted book value as at 30 June 2011 as reflected in the audited financial statements and adjusted for estimated administrative costs up to the date of this report as the basis for the value of cash and other monetary assets. Other non-current assets comprise Ironbark's remaining 4 million shares in Waratah Resources Limited. These are reflected at their market value as at the date of our report. No recognition has been made for either deferred tax liabilities or deferred tax assets as Ironbark has unutilised tax losses and is not expected to realise these losses in the near future.
151. The value ascribed to Ironbark's exploration assets is based on the Ravensgate Technical Expert's Report which assesses Ironbark's mineral assets to fall in the range of \$89.1 million to \$166.9 million. The primary valuation basis used by Ravensgate is comparable transactions.
152. The Citronen Project has been assessed by Ravensgate to fall in the range of \$86 million to \$156 million based on indicative values from transactions for lead and zinc projects. The Ravensgate analysis has used an implied value per tonne of contained metal within the resource as its primary evaluation tool with a discount applied to reflect the operating conditions associated with the Citronen Project location. The assessment has been based on the resources and contained metal reflected in Ironbark's most recent JORC compliant resource statement in December 2010. The December 2010 resource statement does not incorporate the results from the recently completed 2011 drilling program. We understand from Ironbark that this drilling is likely to increase the categorisation of some of the previously identified resources and has identified improved grades within the Esrum deposit.

153. We have also considered a number of the more recent comparable transactions identified by Ravensgate on an implied value per tonne of resource basis together with the market capitalisation of a number of other listed companies holding pre-development lead and zinc projects. These comparisons indicate controlling interest values falling in a wide range of between \$1.00 and \$8.00 per tonne of resource.

Comparable company / transaction analysis



154. We note that the upper bound of this range includes some projects with high grades of mineralisation, which have other metal credits and/or are located in environments more conducive to development. The three projects shown above with an implied resource value of A\$5.00 per tonne or above are either currently under development or have some current production and as such would be expected to have a higher implied value per tonne than the Citronen Project. The projects at the lower bound of this range have lower grades than the Citronen Project.

155. On this basis, we have adopted an indicative range of \$1.50 to \$2.50 per tonne of resource as a benchmark being more appropriate to the resource grades and status of the Citronen Project. We have applied this indicative measure to the Citronen Project resources determined on the higher 3.0% cut off grade as a means of adjusting for the locational factors. This provides an indicative valuation range for the Citronen Project in the order of \$90 million to \$150 million as set out below.

	Implied Value	
	Low	High
Benchmark transaction / capital value per tonne of resource	\$1.50	\$2.50
Citronen Project resources (3 % grade cut-off) [Mt]	59.8	59.8
Indicative value range for the Citronen Project (\$m)	\$89.7	\$149.5

156. This valuation range is in line with the Ravensgate assessed value of \$86 million to \$156 million. We also note that neither the above assessment nor the Ravensgate analysis includes the results of the 2011 drilling even though it is recognised that these are likely to have a favourable impact on the resource classification and grade. We have chosen to adopt a valuation range of \$86.3 million to \$156 million for the Citronen Project in accordance with the assessment by Ravensgate, but have considered the potential impact of the more recent drilling in our selection of the overall value range for Ironbark shares. The values applied to the remaining exploration assets are consistent with those adopted by Ravensgate and are summarised below.

Valuation of Exploration Properties	Low \$m	High \$m
Citronen Project	\$86.3	\$156.0
Other Greenland Projects	\$0.7	\$7.3
Belara	\$1.8	\$2.5
Captains Flat	\$0.3	\$1.1
	\$89.1	\$166.9

Source: Ravensgate Independent Technical Valuation

157. 9.5 million Ironbark options become in the money at the upper bound of our valuation range for Ironbark shares. However, these have no material dilutive impact to the assessed value per share as most of these have an exercise price of \$0.45. As such, no adjustment has been made to the assessed valuation range for share options on issue.



Valuation Cross Check for the Citronen Project

158. Due to the adverse impact of the Citronen Project's locational factors on capital and operating costs relative to most of the projects from which transaction data has been sourced, we have also cross checked the reasonableness of the Citronen Project valuation range to cash flow modelling under various conceptual mine development scenarios being contemplated by Ironbark using a range of economic and operational parameters.
159. Ironbark is at the early stages of mine planning for Citronen and is still in the process of undertaking infill drilling to more fully define the mineralisation upon which mine plans will be developed. A number of different mine planning and development options are being evaluated for Citronen. We have undertaken some scenario analysis using a conceptual cash flow model prepared by Ironbark in order to gain an understanding of key project parameters. As the modelling undertaken and associated cash flows remain conceptual in nature with low levels of confidence around key inputs, the analysis has not been reflected in detail within our report.
160. The scenario modelling undertaken indicates that a mine plan based on exploitation of mineralisation with low cut off grades is economically challenging at current lead and zinc prices given the higher capital and operating costs associated with the location of the Citronen Project. The economics of the project are considerably more favourable under scenarios using higher cut off grades which target areas of higher grade mineralisation. However, such an approach involves higher mining costs and is limited by the practicality of mine planning to access the higher grade ore zones without dilution.
161. The significant additional volumes of lower grade ores which remain unexploited under a high grade cut off mine plan provide an opportunity for longer life operations once higher grade ores have been mined and capital recovered. The additional resource base at marginally lower grades also provides considerable option value to Ironbark as these have the potential to be commercially exploited in the event of a future significant increase in long term lead and zinc prices.
162. The valuation range adopted for the Citronen Project of \$86.3 million to \$156 million is not inconsistent with the scenario modelling we have undertaken using a wide range of potential parameters including scenarios involving additional resource definition at the higher grade cut off. However, we note that our scenario modelling also reflects potential scenarios yielding higher and lower value outcomes than the value range adopted by Ravensgate and the range we have chosen to adopt in our assessment.



163. In common with other mineral projects, the Citronen Project value is highly sensitive to commodity price assumptions. We note that a number of globally significant zinc mines are reaching the end of their mine lives or are scheduling reduced zinc concentrate production from lower grades remaining in their mine plans. With the prospect of continued demand growth from China, the major zinc miners and smelters and key market analysts are forecasting a significant medium term supply deficit for zinc metal production. This may lead to a period of increased zinc prices whilst the market is in deficit and to the active development of new zinc mines. We consider that the expectation of a zinc supply deficit has influenced the higher level of interest by zinc smelters and commodity traders in prospective zinc projects over recent years. It is uncertain to what extent long term prices may have to adjust to the marginal cost of new mines brought into production to meet the anticipated supply deficit.



VI Assessment of the Proposal

Assessment of Fairness

Overview of the Basis of Evaluation

164. Given the interrelated nature of the Glencore Convertible Note Agreements, our evaluation of the fairness of the Proposal has been based on the substance of the transaction as a whole rather than simply comparing the conversion price of the Glencore Convertible Notes to the current share price in the absence of all other related factors.
165. This has involved an assessment of the value of the consideration to be received from Glencore and a comparison to the value of the securities and other rights to be granted to Glencore assuming the Facility is utilised. Given the purpose of the report, our fairness assessment has been made assuming the Facility is fully drawn.
166. The Facility is being provided in two tranches. In substance, the first tranche of USD 30 million effectively represents a deferred share purchase by Glencore. If the Glencore Convertible Notes are out of the money 18 months from issue, Ironbark can call for conversion to equity and if the notes are in the money, Glencore can convert before redemptions commence and dilute the value of the conversion rights. The second tranche of USD 20 million provides Glencore with the benefit of conversion rights in addition to the interest payable on the notes.
167. Assuming the Facility is fully drawn, the Glencore Convertible Note Agreements involve the following:
- A USD 30 million deferred share purchase of Ironbark shares under Tranche 1 of the Facility;
 - A USD 20 million secured loan (over target assets or shares acquired) and associated grant of share options to Glencore under Tranche 2 of the Facility;
 - The grant of offtake rights to Glencore for 55% of concentrate production from the Citronen Project; and
 - The grant of life of mine offtake rights for any base metal production from assets acquired by Ironbark or held by a subsidiary of Ironbark, the acquisition of which is funded in part by the issue of the Glencore Convertible Notes or, where this is unable to be provided, a 1% share of revenue from the sale of such production.

Tranche 1 - Deferred Share Purchase

168. Tranche 1 provides access to USD 30 million of funds carrying interest at USD LIBOR plus 5% per annum up to likely conversion by Ironbark or Glencore after 18 months. The principal is convertible at A\$0.42 per share (subject to adjustment for diluting events). The conversion



terms expose Ironbark to movements in the exchange rate between the US dollar and the Australian dollar.

169. Our assessment of the effective present value of the cash flows from Tranche 1 for the current estimated number of Ironbark shares to be issued upon conversion is set out below.

	USD	FX Conversion	AUD
Issue of Glencore Convertible Notes under Tranche 1 (millions)	30.0		
Conversion to A\$ at forward exchange contract rate (18 month)		0.966	31.1
Number of shares (millions) issued on conversion to Ironbark shares at A\$0.42			74.0
Actual A\$ funds received at issue date converted at spot rate	30.0	1.020	29.4
Interest outflow to Glencore up to conversion (LIBOR + 5% assumed 5.86%)	(2.8)	0.993	(2.8)
Present value of interest obligation			(2.7)
Present value of funds from the Glencore Convertible Note issue under Tranche 1			26.7
Implied present value of consideration per Ironbark share			0.361

170. We consider the present value of the consideration payable upon conversion of the Glencore Convertible Notes under Tranche 1 of the Facility to be A\$0.361 per Ironbark share based on current exchange rate expectations. The actual consideration per share will vary depending on the number of shares into which Tranche 1 may be converted which will be determined by the exchange rate between the Australian dollar and the US dollar at conversion.

Tranche 2 – Convertible Loan

171. The Glencore Convertible Notes are secured over all of the assets or shares in a target company acquired where funding in part was provided by the issue of Glencore Convertible Notes. Whilst the structure and profile of future transactions for which the funds may be applied are unknown at this time, we have compared the interest rate on the Glencore Convertible Notes to a number of other financing arrangements for listed mining projects at the advanced feasibility stage. Subject to the uncertainty over the future target shares or assets to be used as security, the cost of debt finance does not appear to be unreasonable compared to other commercially negotiated debt funding for mining companies with pre-production assets.
172. The conversion terms provide an option value to Glencore which would not otherwise be available to a financier providing a vanilla loan facility. It is not possible to predict what the Ironbark share price will be at conversion. The Citronen Project value, and accordingly the



Ironbark share price, is highly leveraged to future zinc and lead prices (both through additional margin from resources which are anticipated to be mined and additional resources potentially becoming economically exploitable) and Ironbark holds a significant regional tenement holding around the project which is yet to be subject to significant exploration activity. As such, we consider that the share price of Ironbark should exhibit a relatively high level of volatility as mine planning and resource definition is progressed at the Citronen Project, more clarity emerges around global zinc demand and new mine supply and expectations change for potential long term future commodity prices.

173. If the Ironbark share price is above the conversion price of A\$0.50, Glencore is likely to convert Tranche 2 into equity before such a right to conversion expires. If the share price is lower than A\$0.50, Glencore may either convert the debt principal into Ironbark shares to secure a greater level of voting influence over Ironbark or seek repayment of the debt.
174. The Glencore Convertible Notes may be converted into Ironbark shares at the option of Glencore at any time from 18 months from issue of the Glencore Convertible Notes up to maturity after four years. Ironbark is required to commence redemption of Glencore Convertible Notes on issue at a rate of USD 3 million per quarter commencing from 18 months after issue. This will incentivise Glencore to convert Glencore Convertible Notes into Ironbark shares as soon as they become in the money (provided the initial period of 18 months has passed).
175. The optionality provided by Tranche 2 of the Glencore Convertible Notes provides a benefit to Glencore. For the purpose of our assessment of the fairness of the Proposal, we have reflected this benefit as a reduction in the effective consideration payable per Ironbark share under Tranche 1 of the Glencore Convertible Notes.
176. We have assessed the potential value of the conversion rights to Glencore using the Black-Scholes option valuation model. The Black-Scholes model is a commonly used method for valuing share options. The key variables required for application of the Black-Scholes model include the exercise price, current share value, share price volatility, the time period to expiry and the risk free interest rate. The key assumptions we have applied are set out below.



Assumptions

Exercise Price	\$0.50	Tranche 2 conversion price
Share Value	\$0.32 - \$0.43	Assessed controlling interest value
Share Price Volatility	70% - 100%	Volatility range based on the historical volatility observed in Ironbark shares and comparable companies with pre-development base metal projects
Time Period to Expiry	18 months	We have elected to use an option period of 18 months for the purposes of our assessment as after this date redemption of the rates will start to occur which would erode the option value to Glencore
Interest Rate	4.08%	Indicative Australian Government Bond rate for an 18 month term (extrapolated from one and two year bond rates)

177. Consistent with the assessment of a controlling interest value in Ironbark, we have adopted our assessed controlling interest share price for the purposes of assessing the option value to Glencore.

178. Using the above parameters, our assessed value of each conversion right is in the range of A\$0.09 to A\$0.16. Using these values, we have assessed the value of the conversion rights provided to Glencore under Tranche 2 to fall in the range of A\$3.7 million and A\$6.6 million.

	USD	FX Conversion	AUD
Issue of Glencore Convertible Notes under Tranche 2 (millions)	\$20.0		
Conversion to A\$ at forward exchange contract rate (18 month)		0.966	20.7
Number of conversion rights to Ironbark shares at \$0.50 pre share (millions)			41.4

	Low	High
Conversion right value	\$0.09	\$0.16
Number of conversion rights granted under Tranche 2	41.4	41.4
Value of rights associated with Tranche 2 if fully drawn	\$3.7m	\$6.6m



Offtake Rights

179. The offtake rights provided to Glencore under the Proposal appear to be on commercial terms. However, we consider the grant of life of mine offtake rights for all production from a target acquisition which has been funded in part from the Facility, or where these are not provided, a fee equivalent to 1% of revenue from such production, confers a benefit to Glencore to the detriment of Ironbark shareholders.
180. It is not possible to place a definitive value on the offtake rights provided to Glencore under the Glencore Convertible Note Agreement due to the lack of a definitive mine plan for the Citronen Project at the date of this report and the applicability of the life of mine offtake rights to as yet unspecified future targets to be acquired in whole or in part from funds provided under the Facility. As such, the grant of offtake rights has been considered as a qualitative factor within our assessment of the consideration offered by Glencore under the Proposal.

Fairness Conclusion

181. We have assessed the fairness of the Proposal by comparing the effective net consideration provided by Glencore under Tranche 1 with the value of Ironbark shares to be issued and option rights provided under Tranche 2 assessed on a controlling interest basis.

		Low	High	Paragraph
Effective consideration receivable by Ironbark under Tranche 1	\$ million	\$26.7	\$26.7	169
Less: option value to Glencore associated with Tranche 2 conversion rights	\$ million	(\$6.6)	(\$3.7)	178
Net consideration for shares issued under Tranche 1 and other offtake/marketing rights	\$ million	\$20.1	\$23.0	
Number of shares issued under Tranche 1	million	74.0	74.0	169
Maximum net consideration per Ironbark share (assuming no value associated with the offtake/marketing rights granted to Glencore)	\$/share	\$0.27	\$0.31	
Assessed value of Ironbark shares on a controlling interest basis	\$/share	\$0.32	\$0.43	140-142

182. The above assessment indicates that the consideration payable by Glencore under the Proposal for both the shares to be issued under Tranche 1 and the offtake rights is equivalent to 27 cents to 31 cents per Ironbark share. This is lower than our assessed value of 32 cents to 43 cents for an Ironbark share on a controlling interest basis. Accordingly, we consider that the Proposal is not fair.



Assessment of Reasonableness

183. In forming our opinion on the reasonableness of the Glencore Convertible Note Agreements, we have considered the advantages and disadvantages of approving or rejecting the proposed arrangements. The key matters we have considered are set out below.

Advantages

Access to the Facility provides added flexibility for the Directors of Ironbark to pursue potential acquisition opportunities where a cash consideration component is required.

184. Ironbark has not formalised a proposed acquisition, but it is actively evaluating a number of potential targets. If effected, a significant acquisition will increase the scale and profile of Ironbark, add project diversity and may lead to some re-rating of the Company. Ironbark does not currently have income producing assets and has limited capacity to secure debt funding for acquisition purposes. The Directors of Ironbark advise that a potential acquisition arising from targets under consideration is likely to involve the issue of further Ironbark ordinary shares to target shareholders or the vendors of target assets in addition to cash consideration provided by a full or partial draw down of the proposed Facility.

185. A full draw down of the USD 50 million facility for acquisition purposes, either alone or in conjunction with other funding, will allow a substantial acquisition to be effected relative to Ironbark's current asset base and market capitalisation. Such an acquisition would result in:

- an increase in the scale of Ironbark's project base;
- an increase in the investment profile of Ironbark; and
- added project diversification.

186. Access to equivalent cash funding through the issue of new shares would most probably only eventuate at a discount to the Ironbark share price and would not provide the same transaction flexibility and certainty as offered by the Facility.

187. The actual target assets or shares may vary from those currently under consideration by Ironbark. The formalisation of any offer, terms of any potential future acquisition (if any) and the success or level of acceptance of any potential acquisition offer and extent of draw down of the proposed Facility are currently uncertain and unquantifiable.

188. The issue of further equity to effect an acquisition in addition to the draw down of the proposed Facility has the potential to:

- add trading depth to Ironbark's shares;



- dilute the equity percentages and voting influence which would otherwise be held by Ironbark's major shareholders; and
- may lead to some re-rating of the Company.

Tranche 1 of the Facility is favourably priced for Ironbark and the extent of the draw down of the Facility (including any utilisation of Tranche 2) is under the control of the Directors of Ironbark.

189. Our assessment of the fairness of the Proposal has considered only the maximum potential draw down of the Facility. However, the extent of draw down of the Facility and whether any of Tranche 2 is utilised is under the control of Ironbark and would be evaluated against both the benefits derived from use of the funds from this tranche and alternative funding sources. As such, our reasonableness assessment has considered the benefits to Ironbark of draw down of only Tranche 1 of the Facility as well as the implications of full draw down of the entire Facility.
190. Glencore Convertible Notes issued under Tranche 1 may be converted to Ironbark shares at the option of Ironbark (as well as Glencore). After adjusting for interest payable to Glencore over the period up to when Ironbark can call for conversion, the effective consideration payable by Glencore for shares converted under Tranche 1 of the Facility is at a premium to the current market price of Ironbark shares. However, the pre-existing non-dilute rights held by Nyrstar also confer an option benefit to Nyrstar under which Nyrstar has the right to subscribe for sufficient shares on equivalent terms to the shares issued under Tranche 1 of the Facility to maintain its percentage shareholding interest in Ironbark. This is equivalent to an option over 26.7 million Ironbark shares exercisable at \$0.42 each (assuming full draw down of Tranche 1 and conversion into 74.0 million Ironbark shares).
191. In assessing the reasonableness of the terms for draw down of Tranche 1 of the Facility, we have assessed the net benefit to Ironbark shareholders by deducting the value of the option rights conferred on Nyrstar from the implied consideration payable by Glencore. We have assessed the value of the options to Nyrstar using the option valuation parameters applied in our fairness assessment except that we have used our assessed minority interest value of Ironbark's shares of \$0.265 to \$0.29 (paragraph 143-147).



**Value of net consideration to Ironbark under Tranche 1
(with conversion rights assessed on a minority interest basis)**

		Low	High	Paragraph
Effective consideration receivable by Ironbark under Tranche 1	\$ million	\$26.7	\$26.7	169
Less: option value to Nyrstar associated with non-dilute rights on Tranche 1 conversion				
26.7 million options at \$0.07 to \$0.09 per option	\$ million	(\$2.4)	(\$1.9)	Appendix F
Net benefit to Ironbark assuming draw down of Tranche 1 only	\$ million	\$24.3	\$24.8	
Number of shares issued under Tranche 1	million	74.0	74.0	169
Maximum net consideration per Ironbark share under Tranche 1 (assuming no value associated with the offtake/marketing rights granted to Glencore)	\$/share	\$0.33	\$0.34	

192. The net consideration set out in the table above is in excess of the prices at which Ironbark shares have traded up to announcement of the Proposal.

193. Under the Proposal, Glencore Convertible Notes issued under Tranche 2 of the Facility are not able to be converted at Ironbark's option and provide a benefit to Glencore. The pre-existing non-dilute right held by Nyrstar also confers an option benefit to Nyrstar. Our assessment of the fairness of the Proposal has valued the conversion rights to Glencore on the basis of a full control value in accordance with ASIC regulatory guidance. However, as Glencore will not secure control of Ironbark under the Proposal, in assessing the reasonableness of the proposal, we have assessed the value of the conversion rights secured from draw down of Tranche 2 of the Facility using a minority interest share value.

194. We have assumed full draw down of Tranche 2 will give rise to 41.4 million conversion rights consistent with the fairness assessment. If Glencore were to convert the Tranche 2 notes to shares, a total of 14.9 million options will be effectively granted to Nyrstar to enable it to maintain its current 26.5% shareholding interest in Ironbark.

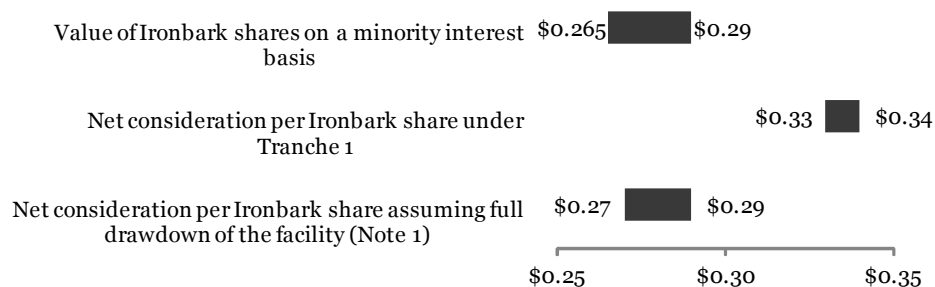
Value of net consideration to Ironbark under full draw down of the Facility (with conversion rights assessed on a minority interest basis)

		Low	High	Paragraph
Maximum net consideration per Ironbark share under Tranche 1 (assuming no value associated with the offtake/marketing rights granted to Glencore)	\$ million	\$24.3	\$24.8	191
Less value decrement on draw down of Tranche 2:				
Option value to Glencore associated with Tranche 2 conversion rights				
41.4 million conversion rights at \$0.06 to \$0.075 per option	\$ million	(\$3.1)	(\$2.5)	Appendix F
Option value to Nyrstar associated with non-dilute rights on Tranche 2 conversion				
14.9 million options at \$0.06 to \$0.075 per option	\$ million	(\$1.1)	(\$0.9)	Appendix F
Net benefit to Ironbark assuming draw down of Tranche 1 and Tranche 2 of the Facility	\$ million	\$20.1	\$21.4	
Number of shares issued under Tranche 1	million	74.0	74.0	169
Maximum net consideration per Ironbark share (assuming no value associated with the offtake/marketing rights granted to Glencore)	\$/share	\$0.27	\$0.29	



195. A comparison of the minority interest value of Ironbark shares to the net consideration per Ironbark share under the Proposal assuming draw down of Tranche 1 only and assuming full draw down of both tranches is set out below. As indicated above, our assessed range of net consideration under each scenario also reflects the impact of non-dilute rights held by Nyrstar. We emphasise that as we have been unable to quantify the value of offtake rights provided to Glencore under the Proposal and the analysis below does not allocate any of the consideration payable by Glencore to these rights. Whilst the general terms of the offtake arrangements under the Proposal are consistent with other commercial arrangements, we consider that these rights confer a benefit to Glencore. Accordingly, the actual effective consideration payable per share is likely to be lower than that shown below.

Valuation of net consideration to Ironbark (with conversion of rights assessed on a minority interest basis)



Note 1 Assuming full drawdown of the facility and conversion rights valued on a minority interest basis

196. Depending on the view taken for the value of offtake rights provided to Glencore under the Proposal, if only Tranche 1 were drawn down the Proposal appears to be priced at a small premium to Ironbark's recent share price prior to announcement of the Proposal. As the premium arises from the issue of securities, it is shared by all Ironbark shareholders. However, the implied level of premium inherent in the terms associated with Tranche 1 of the Proposal is eroded by the value dilutive impact of option rights arising to both Glencore and Nyrstar if Tranche 2 of the Facility is drawn down.

Partial avoidance of marketing fees on future concentrate production from the Citronen Project

197. As indicated earlier in this report, Glencore currently holds exclusive marketing rights over all zinc and lead concentrate production from the Citronen Project for a minimum of six years from commencement of commercial production from the mine. Under the Glencore Convertible Note Agreements, Ironbark will be exempted from the USD 10 per tonne agency fee for concentrate from the Citronen Project provided to Glencore under the Glencore Convertible Note Agreements.



198. The anticipated concentrate production from the Citronen Project (once developed) will vary depending on the scale of processing plant and grade of ore processed but may be between 200,000 and 250,000 tonnes over the initial phase of operations. Under the terms of the Proposal, Glencore will be granted offtake rights to 55% of this production for a period of ten years from production. We consider that partial relief from this fee may have a present value benefit to Ironbark of between \$2 million and \$3 million.

Disadvantages

The Proposal will reduce the level of uncommitted production from the Citronen Project to 10% if the Facility is utilised. This will limit the ability of Ironbark to offer offtake rights to any other party which may be willing to offer development funding for the Citronen Project as part of a wider arrangement to secure offtake.

199. The offtake rights for concentrate production from the Citronen Project provided to Glencore under draw down of funding provided by the Proposal will, together with the existing Nyrstar offtake rights, cover 90% of concentrate production from this project. Ironbark believes that stand alone project financing is likely to be available for the Citronen Project subject to a satisfactory bankable feasibility study outcome. However, we consider that the expectation of a medium term zinc supply deficit provides some prospect that the availability of long term zinc concentrate offtake rights has the potential to provide added leverage for access to development funding from zinc smelters. In our view, this reduces the importance of locking in offtake in advance of completion of the bankable feasibility study. The Proposal will leave only 10% of the Citronen Project offtake uncommitted which we consider may be too small to be attractive to a prospective financier seeking to link the provision of finance with offtake rights.
200. We note that establishment of the Facility will increase the committed Citronen offtake to 70%. We do not view this as disadvantageous to Ironbark as we consider that the remaining 30% of production offtake would be sufficient to be attractive to a financier seeking offtake rights. However, upon any draw down of the Facility, the uncommitted offtake will reduce to 10% which we consider is disadvantageous to Ironbark.

The extension of the conversion rights established under the Proposal to Nyrstar under its existing non-dilute agreement is value decreitive to Ironbark Shareholders.

201. Nyrstar is party to a non-dilute agreement with Ironbark which provides it with the right to participate on a pro rata basis in future issues of securities. Whilst the conversion prices for the Glencore Convertible Notes are above the current Ironbark share price, it is not possible to predict the price at which Ironbark shares may trade at the future date of any conversion of Glencore Convertible Notes. If the share price at that time is higher than the conversion price, it is reasonable to assume that Nyrstar will exercise its rights to participate on the same terms.



202. The Proposal therefore creates option rights to Nyrstar to the detriment of the remaining shareholders. We have assessed the value decreative impact of these rights in paragraphs 191 to 194 of this report and have reflected the potential value erosion of these rights within our valuation of the net consideration set out in paragraph 195 above.

Reduced prospect of a future control transaction for Ironbark shares

203. The Proposal will result in Glencore holding an increased significant shareholding in Ironbark, life of mine offtake/marketing rights over any assets or shares acquired pursuant to funding provided under the Proposal and offtake rights over 55% of production from the Citronen Project (assuming the Facility is drawn). The Proposal will also provide Glencore with increased board representation for so long as Glencore Convertible Notes are on issue.

204. The above rights will diminish the attractiveness of Ironbark as a takeover target to any party other than Glencore. This is likely to reduce the prospect of shareholders receiving a control premium for their shares other than from Glencore. However, as Glencore already holds a 12% interest in Ironbark's shares which will only increase to a maximum of 33% under the proposal and Nyrstar already holds a 26.5% interest in Ironbark, the attractiveness of Ironbark as a takeover target to any party other than Glencore or Nyrstar is already diminished to some degree.

Increased level of influence of major shareholders

205. Glencore will secure an increased equity interest in Ironbark, additional influence at Board level and greater economic influence over Ironbark as a result of draw down of the Facility established under the Proposal. However, the Proposal does not provide Glencore with a controlling interest in Ironbark. If the current shareholding mix is maintained, Glencore's level of voting interest in Ironbark will be countered by the voting interests of Nyrstar and L1 Capital.

206. In the absence of further shares being issued as part of an acquisition or a future capital raising, the Proposal will significantly increase the level of influence of Ironbark's two major shareholders relative to the remaining shareholders. The combined voting interest of Glencore and Nyrstar (although independent parties) could increase from its current level of 38.5% to between 48.8% and 56.9% depending on whether Glencore elects to convert securities issued under Tranche 2 into Ironbark shares and the extent to which Nyrstar elects to utilise its non-dilute rights.

207. The Proposal also provides Glencore with the right to appoint up to three Directors to the Board of Ironbark for so long as Glencore Convertible Notes are on issue. We note that Glencore Convertible Notes issued under Tranche 1 of the Facility may be converted to shares at Ironbark's option after 18 months from issue. Should only Tranche 1 of the Facility be drawn down by Ironbark and the Glencore Convertible Notes converted to shares at the earliest date,



then Glencore will revert to its current right to appoint only one Director of Ironbark. However, Glencore will still maintain an elevated level of economic influence through the additional offtake rights granted under the Proposal and the requirement for Glencore's approval of the use of funds drawn down under the Facility.

Potential exposure to repay Glencore Convertible Notes

208. We consider that Glencore Convertible Notes issued under Tranche 1 of the Facility will be converted to Ironbark shares at either the option of Ironbark or Glencore. However, Ironbark will become exposed to a requirement to redeem Glencore Convertible Notes issued under Tranche 2 in the event that these are not converted into equity at Glencore's option. Up to USD 20 million may be drawn down under Tranche 2 of the Facility with a requirement to redeem notes at the rate of USD 3.0 million per quarter, commencing 18 months from the date of issue. Ironbark does not have any income producing assets and the development of the Citronen Project will not take place within the required repayment time frame for the Glencore Convertible Notes.
209. There is no clarity on the cashflow profile of any assets or shares which may be acquired by utilisation of the Facility. These shares or assets would be the only source of repayment of the Glencore Convertible Notes unless there is an equity issue or other refinancing which may not be attractive given the market conditions which might exist at that time. We note that it is under the control of the Directors of Ironbark to only draw down Tranche 1 of the Facility, which would reduce the risk of default.

Potential exposure to a 1% revenue penalty from Glencore

210. Under the Proposal, Glencore is to secure offtake rights to base metal production from any target acquisition funded in part from the Facility established under the Glencore Convertible Note Agreements. Where such offtake rights are not provided to Glencore, a fee of 1% of the revenue from any such production which is not available to Glencore is to be paid to Glencore.
211. The circumstances of potential target acquisitions will vary. To the extent that a target asset or share acquisition involves a project which has pre-existing offtake arrangements, Ironbark may be exposed to significant penalties from Glencore. Whilst the potential for such an exposure will be considered by the Directors of Ironbark as part of their evaluation of potential acquisition targets, the obligation has the potential to expose Ironbark to significant future obligations.



Other factors considered

Relationship with a major global base metals trader

212. Glencore has an existing relationship with Ironbark through its equity holding and other commercial arrangements. The Proposal will increase the level of Ironbark's existing commercial and strategic relationship with Glencore. The realisation of the commercial rights provided to Glencore are primarily dependent upon future exploitation of the Citronen Project and any assets acquired by Ironbark pursuant to the Glencore Convertible Note Agreements. As such, there will be considerable alignment of Glencore's project development interests with those of Ironbark for so long as the projects held by Ironbark are attractive to Glencore. However, Glencore is motivated to pursue its own global interests which may not be fully aligned with those of Ironbark or its non-associated shareholders. As such, at this stage we are unable to assess whether the additional exposure to Glencore which will arise under the Proposal is a net advantage or a net disadvantage.
213. The Glencore Convertible Note Agreements provide that the Glencore offtake arrangements are to be on standard industry terms and, as such, should be relatively neutral to Ironbark, albeit they are long term in nature. It is not unreasonable to assume that the impact of any production from a target acquisition where offtake rights were unable to be provided to Glencore will be factored into the Directors' assessment of the potential acquisition and not be pursued by Ironbark through funding under the Facility unless the acquisition was viewed to be value accretive to Ironbark's shareholders.



APPENDIX A

DECLARATIONS AND DISCLOSURES

Qualifications

PricewaterhouseCoopers Securities Ltd ("PwCS") is beneficially owned by the partners of PricewaterhouseCoopers ("PwC"), a large international entity of chartered accountants and business advisors. PwCS holds an Australian Financial Services Licence under the Corporations Act.

Roger Port, the person responsible for the preparation of this Report, is a partner in PwC and an authorised representative of PwCS. Roger is a graduate of Macquarie University, a Fellow of the Institute of Chartered Accountants in Australia and Senior Fellow of the Financial Services Institute of Australasia. He holds a Graduate Diploma in Applied Finance and Investment from the Securities Institute of Australia and has completed the Company Directors Course Diploma with the Australian Institute of Company Directors. Roger has extensive experience in the preparation of corporate valuations, independent expert's reports and the provision of corporate financial advisory services to corporations involved in takeovers, capital raisings and mergers and acquisitions.

Paul Hennessy is a partner in PwC and an authorised representative of PwCS. Paul is a graduate of the University of Limerick, a Fellow of the Institute of Actuaries and an Affiliate Member of the Institute of Chartered Accountants in Australia. Paul has extensive experience in the preparation of corporate valuations, independent expert's reports and the provision of corporate financial advisory services to corporations involved in takeovers, capital raisings and mergers and acquisitions.

Independence

We have considered our independence from Ironbark, Glencore and related parties, having regard to ASIC Regulatory Guide 112, and we do not consider that there are any circumstances which conflict with our independence from Ironbark or hinder our ability to provide objective independent advice.

Neither PwCS, PwC nor the authors of this report have, at the date of this Report, or have had within the previous two years, any shareholding in or other relationship with either Ironbark or related parties (other than the provision of professional services for time based fees) that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the proposed transaction.

PwC has carried out assignments for Glencore in the past in the normal course of business. We do not consider that the nature or extent of that work in any way compromises our independence for the purposes of this exercise. In particular, we note that we have not carried out any work for Glencore in relation to this particular transaction.



Neither PwCS, PwC nor the authors of this report have any interest in the outcome of the proposed transaction. PwCS is entitled to receive a fee from Ironbark based on normal professional hourly rates for the time taken in respect of the preparation of this report. The estimated fee is \$100,000 and will be paid regardless of whether or not the Proposal is approved.

A draft of this report was provided to the management of Ironbark for a review of factual accuracy on 21 October 2011. No changes to our opinion arose as a result of this review.

Indemnity

The terms of PwC's appointment include a provision that Ironbark will indemnify PwCS, PwC, its employees, officers and agents against any claim, liability, loss or expense, cost or damage and liabilities arising out of reliance on any information or documentation provided by Ironbark which is false or misleading or incomplete.

Consent

PwCS has consented in writing to this Report in the form and context in which it appears to accompany the notice of meeting which will be issued by the Directors of Ironbark and which will be distributed to Ironbark shareholders.

Neither PwCS nor PwC has authorised or caused the issue of all or any part of Ironbark's notice of meeting other than this report. Neither the whole nor any part of this report nor any reference to it may be included in or with or attached to any other document, circular, resolution, letter or statement without the prior consent of PwCS to the form in which it appears.

APES 225 "Valuation Services"

This independent expert report has been prepared in accordance with APES 225 "Valuation Services".



APPENDIX B

SOURCES OF INFORMATION

The principal sources of information used in the preparation of this Report are as follows:

- The Glencore Convertible Note Agreements, comprising:
 - The commercial agreement (including the form of the global offtake agreement)
 - The convertible note deed
 - The convertible note subscription agreement
 - The Citronen offtake agreement
- The existing Marketing Agency Agreement with Glencore;
- the Nyrstar Subscription Agreement outlining non-dilutive pre-emptive rights to participate on a pro-rata basis in any future dilutive share issues;
- the existing Citronen Project offtake agreement with Nyrstar;
- Ironbark's financial analysis of the offtake agreements;
- draft notice of shareholders meeting;
- ASX announcements by Ironbark;
- scoping studies, pre-feasibility studies and financial models prepared by Ironbark and its consultants in relation to its pre-development assets including the Citronen Project;
- Ironbark's financial statements;
- geological assessments of Ironbark's assets;
- shareholder register provided by Ironbark;
- Ravensgate Technical Project Review and Independent Valuation - Ironbark Zinc Limited Greenland and Australian Assets;
- historical Ironbark share price, historical zinc prices, historical A\$:USD foreign exchange rates, zinc forward prices and A\$:USD foreign exchange forward rates from Bloomberg; and
- comparable companies and transactions from Capital IQ, AME and Intierra.



APPENDIX C

FINANCIAL SERVICES GUIDE

This Financial Services Guide is dated 1 November 2011

1. About us

PricewaterhouseCoopers Securities Ltd (ABN 54 003 311 617, Australian Financial Services Licence no 244572) ("PwC Securities") has been engaged by Ironbark Zinc Limited to provide a report in the form of an Independent Expert's Report in relation to the proposed issue of convertible notes to Glencore.

You have not engaged us directly but have been provided with a copy of the Report as a retail client because of your connection to the matters set out in the Report.

2. This Financial Services Guide

This Financial Services Guide is designed to assist retail clients in their use of any general financial product advice contained in the Report. This Guide contains information about PwC Securities generally, the financial services we are licensed to provide, the remuneration we may receive in connection with the preparation of the Report and how complaints against us will be dealt with.

3. Financial services we are licensed to provide

Our Australian Financial Services Licence allows us to provide a broad range of services, including providing financial product advice in relation to various financial products such as securities, interests in managed investment schemes, derivatives, superannuation products, foreign exchange contracts, insurance products, life products, managed investment schemes, government debentures, stocks or bonds and deposit products.

4. General financial product advice

The Report contains only general financial product advice. It was prepared without taking into account your personal objectives, financial situation or needs.

You should consider your own objectives, financial situation and needs when assessing the suitability of the Report to your situation. You may wish to obtain personal financial product advice from the holder of an Australian Financial Services Licence to assist you in this assessment.



5. Fees, commissions and other benefits we may receive

PwC Securities charges fees to produce reports, including this Report. These fees are negotiated and agreed with the entity who engages us to provide a report. Fees are charged on an hourly basis or as a fixed amount depending on the terms of the agreement with the person who engages us.

Directors or employees of PwC Securities, PricewaterhouseCoopers, or other associated entities, may receive partnership distributions, salary or wages from PricewaterhouseCoopers.

6. Associations with issuers of financial products

PwC Securities and its authorised representatives, employees and associates may from time to time have relationships with the issuers of financial products. For example, PricewaterhouseCoopers may be the auditor of, or provide financial services to the issuer of a financial product and PwC Securities may provide financial services to the issuer of a financial product in the ordinary course of its business.

7. Complaints

If you have a complaint, please raise it with us first, using the contact details listed below. We will endeavour to satisfactorily resolve your complaint in a timely manner. In addition, a copy of our internal complaints handling procedure is available on request.

If we are not able to resolve your complaint to your satisfaction within 45 days of your written notification, you are entitled to have your matter referred to the Financial Ombudsman Service, an external complaints resolution service. The Financial Ombudsman Service can be contacted by calling 1300 780 808. You will not be charged for using this service.

Contact Details

PwC Securities can be contacted by sending a letter to the following address:

Roger Port
PricewaterhouseCoopers Securities Ltd
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250 St Georges Terrace
PERTH WA 6000



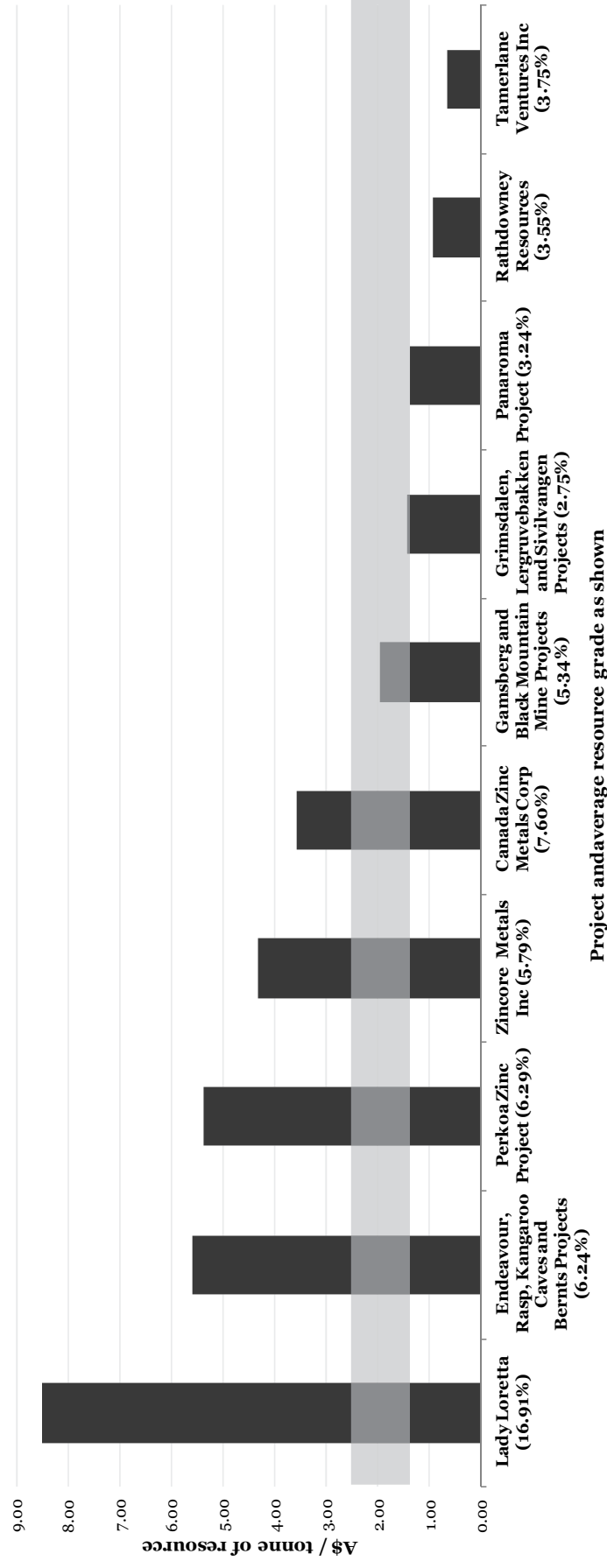
APPENDIX D

Technical Expert's Report



APPENDIX E – Comparable Transaction Analysis

Comparable company / transaction analysis





Project / Target	Details
Lady Loretta	<p>In February 2011 Xstrata acquired the remaining 25% interest in the Lady Loretta Joint Venture held by Cape Lambert Lady Loretta Pty Ltd for A\$30 million.</p> <p>The project is a zinc, lead and silver deposit located 140km north of Mt Isa. Lady Loretta contains a total mineral resource estimated at 14 million tonnes with 17% zinc and 6% lead grade.</p> <p>The mine is currently under development with the development of the decline and underground services and surface infrastructure budgeted to cost A\$246 million. The mine is expected to be operational by the end of 2013 and is expected to treat 1 million tonnes per annum of zinc-lead-silver ore and produce an average of 126,000 tpa of zinc in concentrate and 40, 000 tpa of lead in concentrate over its 10 year mine life. Ore will be treated at Xstrata's ore processing facilities at Mt Isa.</p>
CBH Resources Limited (Endeavour Project, Rasp, Kangaroo Caves and Bernt's Projects)	<p>In March 2011 Toho Zinc Co Limited acquired 100% of CBH Resources Limited at A\$0.24 per CBH share and convertible notes that it did not already own for a total consideration of A\$264 million.</p> <p>The Endeavour mine is located 47 km north of Cobar in central western New South Wales and is the largest zinc, lead and silver producer in the region. The underground mine commenced operations in 1983 (at a development cost of A\$270 million). It is currently treating 720,000 tonnes of ore per annum to produce 85,000 tpa of zinc concentrate, 50,000 tpa of lead concentrate and 24,000 kg of silver concentrate (contained in the lead concentrates). It is expected to sustain a mine life of 10 years.</p> <p>The Rasp Mine is located at Broken Hill in New South Wales. The mine is currently being expanded at a cost of A\$110 million. Over its life of mine, the Rasp project is expected to extract 8.5 million tonnes of ore with 8,000 tonnes of lead concentrate and 12,000 tonnes of zinc concentrate produced within the first year of operations. Stage 2 of the development will increase ore production to 750,000 tpa for approximately 15 years.</p> <p>The Kangaroo Caves project is currently undergoing a feasibility study and has a mineral resource of 6.3 million tonnes at 3.3% zinc and 0.5% copper. Current indications are that capital expenditures for the underground mine development will be A\$150 million</p>

Project / Target	Details
	based on a mining rate of 600,000 tpa.
	The Bernt's mine is another deposit located near Kangaroo Caves and Sulphur Springs. It is in the advanced exploration stage and currently has estimated resources of 1 million tonnes at 6% zinc and 1% lead.
Perkoa Zinc Project	<p>The Perkoa Zinc project is located in Burkina Faso, 120km west of Ouagadougou in West Africa. The development of the mine will be the largest zinc mine development in the country to date. Construction commenced in 2007 but was put on hold until December 2010 due to a decline in global metal prices.</p> <p>The project has probable ore reserves of 6.3 million tonnes at a head grade of 14% zinc. Plant throughput will be 720,000 tpa and the project will have a life of mine of 9.5 years with zinc concentrate production of 170,000 tpa.</p>
Zincore Metals Inc.	Zincore Metals is an exploration company with two core assets; Accha and Yanque, both located in Peru. The company plans to produce a high grade zinc-lead concentrate and transport it to a Zincore-owned electrowinning facility located at a port city in southern Peru. Current resources are in excess of 17 million tonnes with zinc grades in the order of 9%.
Canada Zinc Metals Corp	Canada Zinc Metals Corp is a mineral exploration company focused on the Cardiac Creek project in British Columbia, Canada. The Cardiac Creek deposit has an inferred mineral resource of 24 million tonnes at a grade of 8% zinc, 2% lead and 13 g/t silver.
Black Mountain and Gamsberg Projects	<p>In May 2010 Vedanta Resources Plc announced that it had agreed to purchase Anglo American's zinc operations for A\$380 million comprising the Black Mountain Mine and the Gamsberg project.</p> <p>The Black Mountain Mine is located in the Namaqualand District in South Africa. It is currently operational and has 75 million tonnes of mineral resources.</p> <p>The Gamsberg project is located 116km north east of Springbok in South Africa. It is currently undeveloped but consists of 186</p>



Project / Target	Details
Rathdowney Resources Ltd	million tonnes of ore at zinc grades of 7%. Rathdowney Resources Ltd is a mineral exploration company with interests in Poland and Ireland. In Poland, the company's interest is the Upper Silesian Mining District, in which it has been granted two prospecting concessions, and applied for a third, encompassing an area of 150 square km.
Gimsdalen, Lergruvebakken and Sivilvangen Zinc Projects	In September 2011 Lybica Holding B.V. acquired the Gimsdalen, Lergruvebakken and Sivilvangen Zinc Projects from Intex Resources ASA. All three projects are located in Norway and are zinc and copper deposits with a total of 9 million tonnes of JORC compliant mineral resources at grades between 2% and 8% zinc. These projects are currently still in the exploration stage.
Panorama Project	In January 2011 Venturex Resources Limited acquired the Panorama Copper Zinc Project from CBH Resources Limited for A\$26 million. The Panorama Project is the largest VMS deposit in the Pilbara and is located 162km south east of Port Hedland. It contains JORC compliant mineral resources of 19 million tonnes at a grade of 1.2% copper and 3.2% zinc. Feasibility studies have confirmed a high grade core, amenable to large scale underground mining.
Tamerlane Ventures Limited	Tamerlane Ventures is a mineral exploration and development company with projects in Canada and Peru. The two main assets are the Pine Point property in Canada which is a zinc/lead deposit and the Los Pino property in Peru which is a copper deposit. Tamerlane is planning to commence the development of the Pine Point Project following receipt of the environmental land and water use permits. Infrastructure construction is expected to occur over a period of 12-15 months prior to commencement of operations. Mining reserves were calculated at 8 million tonnes at 6.16% zinc and 3.01% lead. Measured and indicated resources are 8 million tonnes at 2.26% zinc and 1.13% lead, while inferred resources total 4 million tonnes at 2.36% zinc and 0.82% lead. The Los Pino property is still under exploration with infill drilling of USD 1m planned on receipt of the drilling permit.



APPENDIX F - Valuation of Conversion Rights

	Tranche 1 Conversion Rights Minority interest basis	Tranche 2 Conversion Rights Minority interest basis	Tranche 2 Conversion Rights Controlling interest basis
Exercise price	\$0.42	\$0.50	\$0.50
Share price	\$0.265 - \$0.29	\$0.265 - \$0.29	\$0.32 - \$0.43
Share price volatility	70% - 100%	70% - 100%	70% - 100%
Time period to expiry	18 months	18 months	18 months
Interest rate	4.08%	4.08%	4.08%
Option value	\$0.07 - \$0.09	\$0.06 - \$0.075	\$0.09 - \$0.16

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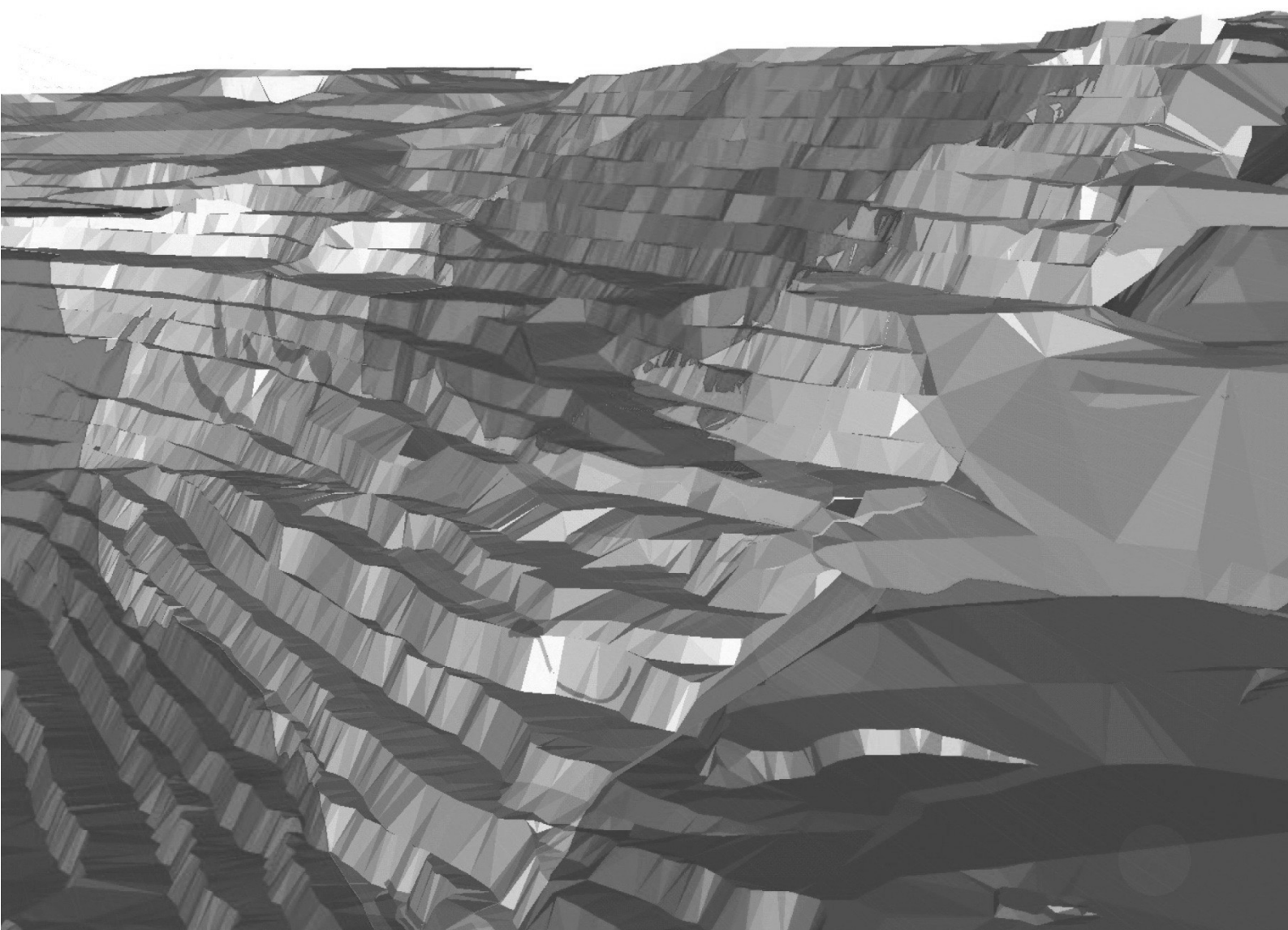
Ravensgate



**TECHNICAL PROJECT REVIEW
AND
INDEPENDENT VALUATION REPORT
IRONBARK ZINC LIMITED GREENLAND
AND AUSTRALIAN ASSETS**

for

PRICEWATERHOUSECOOPERS SECURITIES LTD





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TECHNICAL PROJECT REVIEW
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Ravensgate

9 September 2011



TECHNICAL PROJECT REVIEW and INDEPENDENT TECHNICAL VALUATION

Prepared by RAVENSGATE on behalf of:

Ironbark Zinc Limited and PricewaterhouseCoopers Securities Ltd

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	8
2. INTRODUCTION	10
2.1 Terms of Reference	10
2.2 Qualifications, Experience and Independence	11
2.3 Disclaimer	12
2.4 Principal Sources of Information.....	13
2.5 Competent Person Statements	13
2.6 Background Information	13
3. CITRONEN FJORD BASE METAL PROJECT, GREENLAND	16
3.1 Introduction and Location.....	16
3.2 Tenure and Physiography.....	16
3.3 Geology and Mineralisation	17
3.3.1 <i>Regional Geology</i>	17
3.3.2 <i>Local Geology</i>	18
3.3.3 <i>Mineralisation</i>	21
3.4 Exploration History	21
3.5 Current Exploration 2007 - 2010	22
3.6 Project Potential and Mineral Resource Estimate	23
3.6.1 <i>Citronen Fjord Resource Estimates</i>	23
3.6.2 <i>Citronen Fjord Project Potential</i>	40
3.7 Technical Project Review	40
3.7.1 <i>Executive Summary</i>	40
3.7.2 <i>Technical Review</i>	41
3.7.3 <i>Feasibility Study - Review</i>	41
3.7.4 <i>Conclusions</i>	54
4. MESTERSVIG ZINC-LEAD PROJECT, GREENLAND	55
4.1 Introduction	55
4.2 Tenure and Physiography.....	55
4.3 Geology and Mineralisation	56
4.4 Exploration History	56
4.5 Current Exploration 2010 - 2011	57
4.6 Project Potential	57
5. WASHINGTON LAND PROJECT, GREENLAND	58
5.1 Introduction	58
5.2 Tenure and Physiography.....	58
5.3 Geology and Mineralisation	58
5.4 Exploration History	58
5.5 Current Exploration History.....	58
5.6 Project Potential	58
6. BELARA BASE METAL-GOLD, NEW SOUTH WALES.....	59
6.1 Introduction	59



6.2	Tenure and Physiography.....	59
6.3	Geology and Mineralisation	59
6.3.1	<i>Regional Geology</i>	<i>59</i>
6.3.2	<i>Local Geology and Mineralisation</i>	<i>59</i>
6.4	Exploration History	60
6.5	Current Exploration History.....	60
6.6	Project Potential and Mineral Resource Estimate	61
6.6.1	<i>Mineral Resource Estimate.....</i>	<i>61</i>
6.6.2	<i>Belara Project Potential.....</i>	<i>61</i>
7.	CAPTAINS FLAT, NEW SOUTH WALES	63
7.1	Introduction	63
7.2	Tenure and Physiography.....	63
7.3	Geology and Mineralisation	63
7.4	Exploration History	64
7.5	Current Exploration History.....	64
7.6	Project Potential	64
8.	VALUATION.....	65
8.1	Introduction	65
8.2	Previous Mineral Asset Valuations	67
8.3	Material Agreements	67
8.4	Comparable Transactions	68
8.4.1	<i>Reported Market Transactions involving Zinc Projects within Australia and Overseas</i>	<i>69</i>
8.4.2	<i>Commodity Prices.....</i>	<i>76</i>
8.5	Mineral Asset Valuations.....	78
8.5.1	<i>Citronen Zinc Project, Greenland</i>	<i>78</i>
8.5.2	<i>Mestersvig Base Metal Project, Greenland.....</i>	<i>80</i>
8.5.3	<i>Washington Land Base Metal Project, Greenland.....</i>	<i>81</i>
8.5.4	<i>Belara Base Metal Project, New South Wales, Australia</i>	<i>81</i>
8.5.5	<i>Captains Flat Base Metal Project, New South Wales, Australia</i>	<i>83</i>
8.6	Valuation Summary	84
9.	TENEMENT DETAILS	85
10.	REFERENCES	86
11.	GLOSSARY	92



LIST OF TABLES

Table 1	December 2010 Citronen Mineral Resource Estimates (Hyland, 2010b).....	9
Table 2	Ironbark - Project Technical Valuation Summary for Greenland and Australian Projects..	9
Table 3	Exploration History - Citronen Fjord Base Metal Project	22
Table 4	Citronen - 'Down-Hole' Variogram Model findings (MineSight - M303V1 - 'Variograms for Composites') - Using Composites Coded within 2% Zn Shells	28
Table 5	"Measured" Specific Gravity and "Calculated" SG values for Citronen Drilling core for Zn values greater than 2%.....	30
Table 6	Citronen Areas - QLTy item Classification Code Calculation Parameters	32
Table 7	Current Resource Summary - Citronen Deposit Areas at Varying Zinc Lower Cut-Off Grades (OK Block Model) - All Material reported within 2%Zn Mineralisation shells	35
Table 8	Current Resource Summary - Citronen Deposit Areas at Varying Zinc Lower Cut-Off Grades (OK Block Model) - All Material reported within 3.5%Zn Mineralisation shells.....	35
Table 9	Resources Estimation Risk Review - Citronen Project	36
Table 10	Resource & Ore Inventory Statement (cut-off grades are not stated).....	44
Table 11	Operating Costs - 2010 to 2011 projections ¹	51
Table 12	Exploration History - Mestersvig Lead-Zinc Project Area	56
Table 13	Exploration History - Washington Land Base Metal Project Area	58
Table 14	Belara Project Mineral Resource Statement, April 2007	61
Table 15	Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World.....	70
Table 16	Market Transactions Involving Zinc-Lead Exploration Projects at a particularly early and conceptual stage within Australia	76
Table 17	Ironbark - Project Technical Valuation for Citronen Fjord Project	80
Table 18	Ironbark - Project Technical Valuation for Mestersvig Project	81
Table 19	Ironbark - Comparable Transactions Valuation for Belara Project	82
Table 20	Ironbark - Comparable Transactions Valuation for Captains Flat Project	83
Table 21	Ironbark - Project Technical Valuation Summary for Greenland and Australian Projects	84
Table 22	Project Tenement Details for Greenland and Australia	85



LIST OF FIGURES

Figure 1	Locality Map of the Greenland Projects.....	14
Figure 2	Locality Map of the Australian Projects.....	15
Figure 3	Ironbark Zinc Limited Tenement Location Plan - Citronen Fjord Project.....	16
Figure 4	Regional Geology of Northern Greenland (after Kriege, 2011d)	17
Figure 5	Citronen Fjord Base Metal Project Local Geology.....	19
Figure 6	Citronen Fjord Cambrian-Silurian Stratigraphic Column (after Kriege, 2011d)	20
Figure 7	Plan view of Citronen showing new fault zone interpretation (dark pink), Sulphide mineralization zones (Zn 2%) are shown in pale yellow	24
Figure 8	Typical Cross Section of Citronen mineralised zones showing drill-hole traces, and topographic surface	25
Figure 9	General Site “Oblique View” of Citronen Zn & Pb Project Area - Showing proximity of Major 3.5% Zn Mineralogical Zones (Light Blue) with local topographic surface and major hydrographic features - (View direction Azimuth = 70 degrees - Dip = -25 degrees).....	27
Figure 10	Citronen Zinc Project Areas - Graphical Distribution of the 4 Resource ‘QLTY’ Zones...	33
Figure 11	Current Mining Plan - Open Pit & Underground Operations commencing at the same time.....	48
Figure 12	Proposed Mining Plan -Underground Operations first, defer open pit until underground operations are complete.....	49
Figure 13	Zinc Price	51
Figure 14	Benchmarked costs per tonne	52
Figure 15	Benchmarked costs per tonne	53
Figure 16	Ironbark Zinc Limited Tenement Location Plan - Mestersvig Project	55
Figure 17	Price chart for Zinc, Lead and Copper Monthly Price January 2005 to July 2011	77
Figure 18	Price Chart for Silver and Gold Monthly Price January 2005 to July 2011	78



1. EXECUTIVE SUMMARY

Corvidae Pty Ltd ATF Ravensgate Unit Trust T/As Ravensgate (Ravensgate) has been commissioned by Ironbark Zinc Limited (Ironbark) and PricewaterhouseCoopers Securities Ltd (PwCS) to provide a Technical Project Review on Ironbark's Greenland and Australian Assets and an Independent Technical Valuation over these Projects. This Technical Project Review and Independent Valuation Report was prepared by Ravensgate for inclusion in the Independent Expert's Report (IER) prepared by PricewaterhouseCoopers Securities Ltd. The IER will be included in Ironbark's notice of meeting and explanatory statement. Ironbark's Greenland Projects are currently owned 100% by Ironbark. Ironbark's Australian Projects have various ownership percentages from 25.5% to 100% and are detailed in this report. The tenement applications in progress by Ironbark have not been included in this valuation of Mineral Assets managed by Ironbark Zinc Limited unless it is a licence renewal. The projects included in this report are listed below with the first three projects forming the majority of the Technical Project Review.

<u>Mineral Asset</u>	<u>Ironbark Ownership %</u>
• Citronen Fjord (Base Metals), Greenland	100%
• Mestersvig (Base Metals), Greenland	100%
• Washington Land (Base Metals), Greenland	100%
• Belara (Base Metals), NSW, Australia	100% (Diluting to 25%)
• Captains Flat (Base Metals), NSW, Australia	25.5% (Contributing to 37.5%)
• Captains Flat (Base Metals), NSW, Australia	100%

Ironbark's Base Projects are located in Greenland and the State of New South Wales, Australia. The Citronen Fjord in Greenland is the most advanced of the company's projects with previous Mineral Resource Estimates having been completed and a Prefeasibility Mining Study presently being undertaken. Tenement details have been compiled for detailed review and are appended at the end of this report. Further exploration work remains to be carried out in order to help improve geological understanding, to generate or investigate exploration targets and to update Mineral Resources and associated ongoing economic studies (where defined and as further work progresses) within the various projects. Ravensgate's considered opinion is that the projects are of merit and worthy of further exploration.

The valuation presented in this report was completed at the request of Ironbark Zinc Limited and PricewaterhouseCoopers Securities Ltd. The valuation has been completed with information provided by and with the full support of Ironbark. The applicable valuation date is 1 September 2011. The Mineral Assets within Ironbark's projects vary from Exploration Areas through to Pre-Development Projects. A reported Mineral Resource as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2004 Edition) has been defined for the Citronen Fjord and Belara projects. The Mineral Resource Estimate at a 2% Zn lower cut-off carried out by Ironbark with the assistance of Ravensgate in December 2010 for the Pre-Development Project Citronen Fjord is reproduced below (Table 1). Further discussion of resource estimation and other project details for Citronen Fjord are described within the main body of this report. Competent Person statements are listed in Section 2.5.



Table 1 December 2010 Citronen Mineral Resource Estimates (Hyland, 2010b)

Deposit	Category	Tonnes (Mt)	At Zn > 2 %	
			Zn %	Pb %
Citronen	Measured	33.23	3.77	0.47
	Indicated	52.22	3.69	0.48
	Inferred	47.20	3.34	0.40
	Total	132.65	3.59	0.45

* The summary resource statement has been compiled to an appropriate level of precision and minor rounding errors may occur.

Ravensgate did not carry out a site visit specifically for this report, as Ravensgate personnel have visited the major projects on previous occasions. Ravensgate is satisfied that there is sufficient information currently available to allow an informed appraisal to be made without including additional site inspections and is of the opinion that no significant additional benefit would have been gained through a site visit to these areas at this stage. Ravensgate has concluded that the Greenland and Australian Base Metal Projects, owned by Ironbark, are of technical merit (although at varying stages of exploration and subsequent Mineral Asset classification), and are therefore worthy of conducting further exploration and development where possible.

A summary of the Greenland and Australian project valuations in their respective ownership percentage terms is provided in Table 2 below. The applicable valuation report date is 1 September 2011 and is derived from an analysis of the resource bases in conjunction with the Joint Venture Terms and Comparable Transactions valuation methods. The value of Ironbark's listed Projects is considered to lie in a range from \$89.06M to \$166.86M, within which Ravensgate has selected a preferred value of \$117.97M.

Table 2 Ironbark - Project Technical Valuation Summary for Greenland and Australian Projects

Project	Mineral Asset	Ownership 100%	Valuation		
			Low \$M	High \$M	Preferred \$M
Citronen	Pre-Development Exploration Area	100%	86.25	155.95	113.45
Mestersvig	Exploration Area	100%	0.41	4.10	1.05
Washington Land	Exploration Area	100%	0.32	3.22	0.78
Belara	Advanced Exploration Area	100%	1.76	2.53	2.15
Captains Flat	Advanced Exploration Area	25.5% & 100%	0.31	1.06	0.55
Combined Projects	All listed projects	25.5% & 100%	89.06	166.86	117.97

* The combined valuation has been compiled to an appropriate level of precision and minor rounding errors may occur.



2. INTRODUCTION

2.1 Terms of Reference

Corvidae Pty Ltd ATF Ravensgate Unit Trust T/As Ravensgate (Ravensgate) has been commissioned by Ironbark Zinc Limited (Ironbark) and PricewaterhouseCoopers Securities Ltd (PwCS) to provide a Technical Project Review and an Independent Technical Valuation over Ironbark's exploration assets consisting of their Greenland and Australian mineral assets. Ironbark's Greenland and Australian base metal assets consist of the following projects:

- Citronen Fjord;
- Mestersvig;
- Washington Land;
- Belara; and
- Captains Flat;

The Technical Project Review and Independent Valuation Report was prepared by Ravensgate for inclusion in the Independent Expert's Report (IER) prepared by PricewaterhouseCoopers Securities Ltd. The IER will be included in Ironbark's notice of meeting and explanatory statement. The Greenland and Australian projects apart from the tenements that make up the Captains Flat Joint Venture are currently owned by Ironbark. Tenement application currently in progress (i.e. pending) by Ironbark have not been included in this valuation of Mineral Assets owned by Ironbark Zinc Limited unless they are a renewal licence application. Ravensgate understands that all the project tenements in Greenland and Australia are held in good standing. Ravensgate makes no other assessment or assertion as to the legal title of tenements and is not qualified to do so.

The objective of this report is to firstly provide a Technical Project Review of the Mineral Resource Estimates for Ironbark's Greenland and Australian Assets. The second objective of this report is to provide a VALMIN compliant valuation and technical assessment of the projects. The work has been commissioned by Ironbark Zinc Limited (Ironbark) and PricewaterhouseCoopers Securities Ltd (PwCS). The Report will be included in the IER and notice of meeting and explanatory statement and may be distributed to shareholders or investors in the form and context in which it appears within that report.

Ravensgate did not carry out a recent site visit due to the time constraints on producing this report. Ravensgate is satisfied that there is sufficient current information available to allow an informed appraisal to be made without including an updated site inspection of the projects and is of the opinion that no significant additional benefit would have been gained through a site visit to these areas at this stage. Ravensgate has concluded the Greenland and New South Wales Base Metals Projects are of technical merit and are worthy of conducting further review and exploration.

This report does not provide a valuation of Ironbark as a whole, nor does it make any comment on the fairness and reasonableness of any proposed transaction between any two companies. The conclusions expressed in this Technical Project Review and Independent Technical Valuation are valid as at the Valuation Date (1 September 2011). The review and valuation is therefore only valid for this date and may change with time in response to changes in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values included in this report are expressed in Australian dollars (A\$) unless otherwise stated.



This report has been prepared in accordance with the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (The ValMin Code) as adopted by the Australasian Institute of Mining and Metallurgy (AusIMM) in April 2005. The report has also been prepared in accordance with ASIC Regulatory Guides 111 (Contents of Expert Reports) and 112 (Independence of Experts). The Technical Project Review and Independent Technical Valuation report has been compiled based on information available up to and including the date of this report.

2.2 Qualifications, Experience and Independence

Ravensgate was established in 1997 and specialises in resource modelling and resource estimation services. The company has worked for major clients globally, including Freeport at Grasberg Mine, Ok Tedi Gold Mine in Papua New Guinea, Goldfields in Ghana, BHP in Western Australia and many junior resource companies which are ASX (Australian Stock Exchange), TSX (Toronto Stock Exchange) or AIM (London Stock Exchange) listed companies. Ravensgate has focused upon providing resource estimations, valuations, and independent technical documentation and has been involved in the preparation of Independent Reports for Canadian, Australian, United States and United Kingdom listed companies.

Author: Stephen Hyland, Principal Consultant and Director. BSc Geology, MAusIMM, CIMM, GAA, MAICD.

Stephen Hyland has had extensive experience of over 20 years in exploration geology and resource modelling and has worked extensively within Australia as well as offshore in Africa, Eastern and Western Europe, Central and South East Asia, modelling base metals, gold, precious metals and industrial minerals. Stephen's extensive resource modelling experience commenced whilst working with Eagle Mining Corporation NL in the diverse and complex Yandal Gold Province where for three and half years he was their Principal Resource Geologist. The majority of his time there was spent developing the historically successful Nimary Mine. He also assisted the regional exploration group with preliminary resource assessment of Eagle's numerous exploration and mining leases. Since 1997, Stephen has been a full time consultant with the minerals industry consulting firm Ravensgate where he is responsible for all geological modelling and reviews, mineral deposit evaluation, computational modelling, resource estimation, resource reporting for ASX / JORC and other regulatory compliance areas. Primarily, Stephen specialises in Geological and Resource Block Modelling generally with the widely used MEDSystem / MineSight® 3D mine-evaluation and design software. Stephen Hyland holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia. He is a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI43-101.

Co Author: Don Maclean, Principal Consultant - MSc (Hons) Geology, MAIG, MSEG

Don Maclean is a geologist with more than 15 years experience in the minerals industry. Don has worked in a number of different geological environments in Australasia and Europe. He has a broad skill base, having worked in regional and near mine exploration, resource development, open pit and underground geology as well as in senior company management roles. Don Maclean holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia. He is a Qualified Person under the rules of the CIMM and NI43-101.



Co-author: Sam Ulrich, Principal Consultant. BSc (Hons) Geology, GDAppFin, MAusIMM, FFin.

Sam Ulrich is a geologist with over 14 years experience in near mine and regional mineral exploration, resource development and the management of exploration programs. He has worked in a variety of geological environments in Australia, Indonesia, Laos and China primarily in gold, base metals and uranium. Prior to joining Ravensgate Sam worked for Manhattan Corporation Ltd a uranium exploration and resource development company in a senior management position. Mr Ulrich holds the relevant qualifications and professional associations required by the ASX, JORC and VALMIN Codes in Australia.

Peer Reviewer: Jason McNamara, Principal Consultant - Resources. BSc Geology, MAusIMM.

Jason McNamara is an Associate of Ravensgate. As a Principal Consultant he carries out work for Mineral Resource estimations, Independent Technical Valuations, Independent Geologist Report's and Formal Technical Project reviews over a range of commodities. He has a broad skill base with over 18 years international mining industry experience in operational project exploration, resource estimation, grade control and senior management roles. Jason has worked for both junior and larger ASX listed companies, encompassing open-cut operations and evaluations in Africa, Europe and Australasia. Competent Person sign-off was undertaken for MMG's Sepon Gold and Copper Resources in Laos. Jason McNamara holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia.

ORElogy was established in 2005 and specialises in providing innovative and practical mine planning solutions to the international mining industry. Major clients include Rio Tinto, Asia Iron, Extract Resources, Crosslands Resources, Atlas Iron to name a few. ORElogy are also the developers of the evORElution mine scheduling software.

Author: Stephen Craig, Principal Consultant and Director. BEng, MAusIMM

Steve Craig is a mining engineer with 25 years experience. Steve has worked as an independent engineer for the past 15 years and since 2005 is the Managing Director of ORElogy. ORElogy focuses specifically on mine planning and has worked on various open pit and underground projects throughout the world. Steve is a Member of the AUSIMM and holds the relevant qualifications required by the Australia Securities Exchange (ASX).

2.3 Disclaimer

The Authors of this report, are not, nor intend to be, a director, officer or other direct employee of Ironbark Zinc Limited, and have no material interest in the projects of Ironbark Zinc Limited. Ravensgate holds nil interest or shareholdings in Ironbark Zinc Limited. The relationship with Ironbark Zinc Limited and PricewaterhouseCoopers Securities is solely one of professional association between client and independent consultant. Ravensgate's professional fees are based on time charges for work actually carried out, and are not contingent on any prior understanding concerning the conclusions to be reached. Fees arising from the preparation of this report are charged at Ravensgate's standard rates and are in the order of \$40,000 to \$50,000. Neither Ravensgate nor any of its employees or associates is an insider, associate or affiliate of FerrAus Limited or any associated company. The report has been prepared in compliance with the Corporations Act and ASIC Regulatory Guides 111 and 112 with respect to Ravensgate's independence as experts. Ravensgate regards RG112.31 to be in compliance whereby there are no business or professional relationships or interests which would affect the expert's ability to present an unbiased opinion within this report. This Report has been compiled based on information available up to and including the date of this Report.



During the past two years Ravensgate has been engaged by Ironbark Zinc Limited to carry out independent technical reviews of certain aspects of Ironbark's projects and assist with resource modelling and resource estimation. Ravensgate considers itself independent of Ironbark Zinc Limited and considers that this previous work does not affect its ability to provide an unbiased and objective assessment for this assignment.

2.4 Principal Sources of Information

The principal sources of information used to compile this report comprise technical reports and data variously compiled by Ironbark Zinc Limited (Ironbark) and their partners or consultants, publically available information such as ASX releases, government reports and discussions with Ironbark's technical and corporate management personnel. With the consent of Ironbark, other general report contents describing the regional geology, historical exploration and current exploration has been reproduced verbatim from a number of Ironbark internal and publically available reports. A listing of the principal sources of information is included in the references attached to this report. All reasonable enquiries have been made to confirm the authenticity and completeness of the technical data upon which this report is based. A final draft of this report was also provided to Ironbark, along with a request to identify any material errors or omissions prior to final submission.

2.5 Competent Person Statements

The information in this Report that relates to in-situ Mineral Resources at Citronen is based on information compiled by Adrian Byass of Ironbark Zinc Limited and is described in Section 3.6.1.1. Adrian Byass takes overall responsibility for the Mineral Resource and associated reporting requirements. He is a Member of the Australian Institute of Geoscientists and has sufficient experience with Base Metals deposits which is relevant to the deposit type and style of mineralisation under consideration. He is a competent person with respect to the reporting activity he has undertaken according to the guidelines of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2004 Edition). Adrian Byass consents to the inclusion of such information in this Report in the form and context in which it appears. Mr Byass is a full time employee of Ironbark Zinc Limited.

2.6 Background Information

The projects discussed in this report are located in Greenland and New South Wales (NSW), Australia. A locality map of the Greenland projects is presented in Figure 1 and the NSW projects in (Figure 2) below. A summary of the tenement details is listed in Table 22 at the end of this report. Report file references and a glossary are also included at the end of this report. Ravensgate understands that all the project tenements in Greenland and NSW are held in good standing. Ravensgate makes no other assessment or assertion as to the legal title of tenements and is not qualified to do so. Geological understanding, exploration history and mineralisation potential are further discussed for each project in subsequent sections. The Technical Project Review is outlined in Sections 3, 4, 5, 6 and 7 for Citronen Fjord Base Metal Project, Mestersvig Base Metal Project, Washington Land Base Metal Project, Belara Base Metal Project and Captains Flat Base Metal Project respectively. The Independent Valuation of the Ironbark projects is outlined in Section 8 onwards.



Figure 1 Locality Map of the Greenland Projects

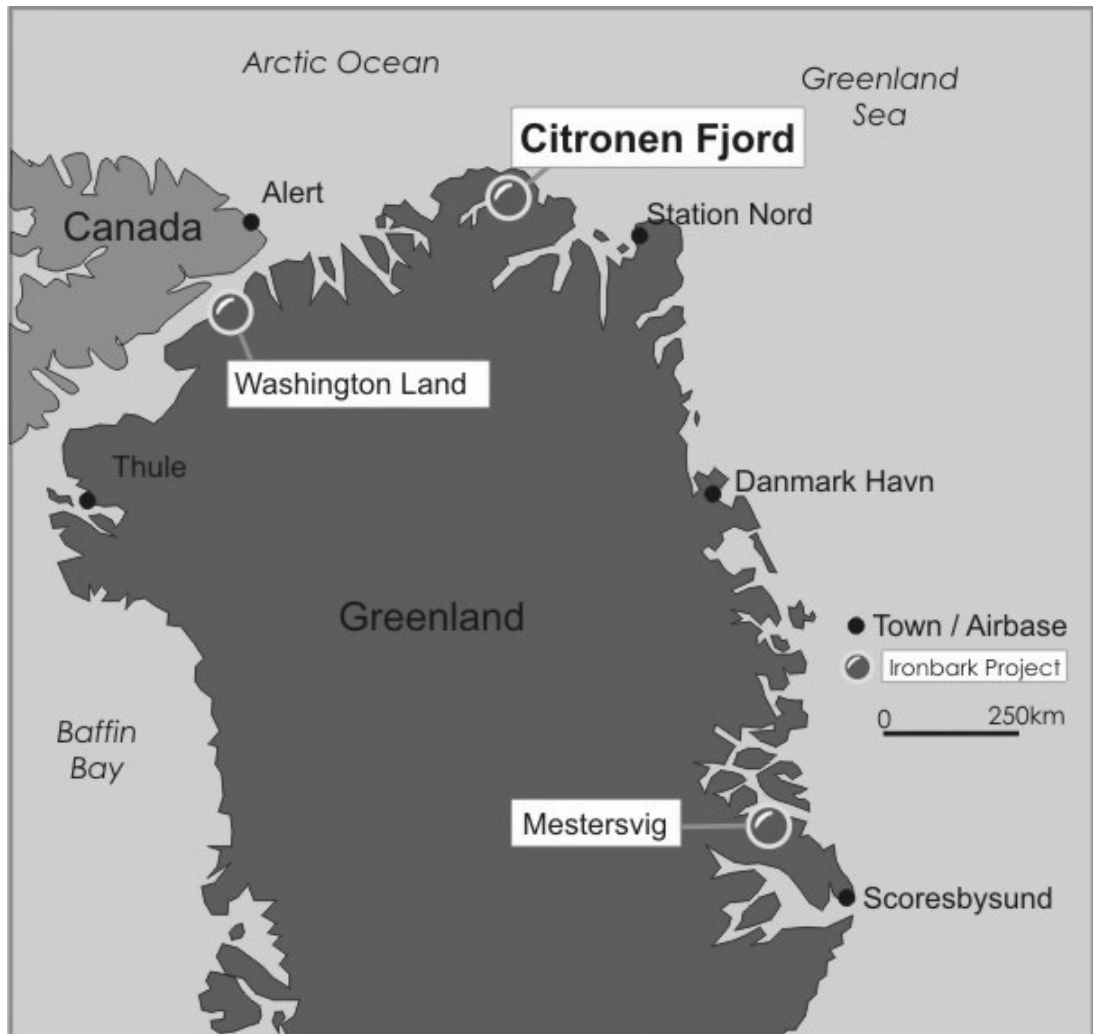
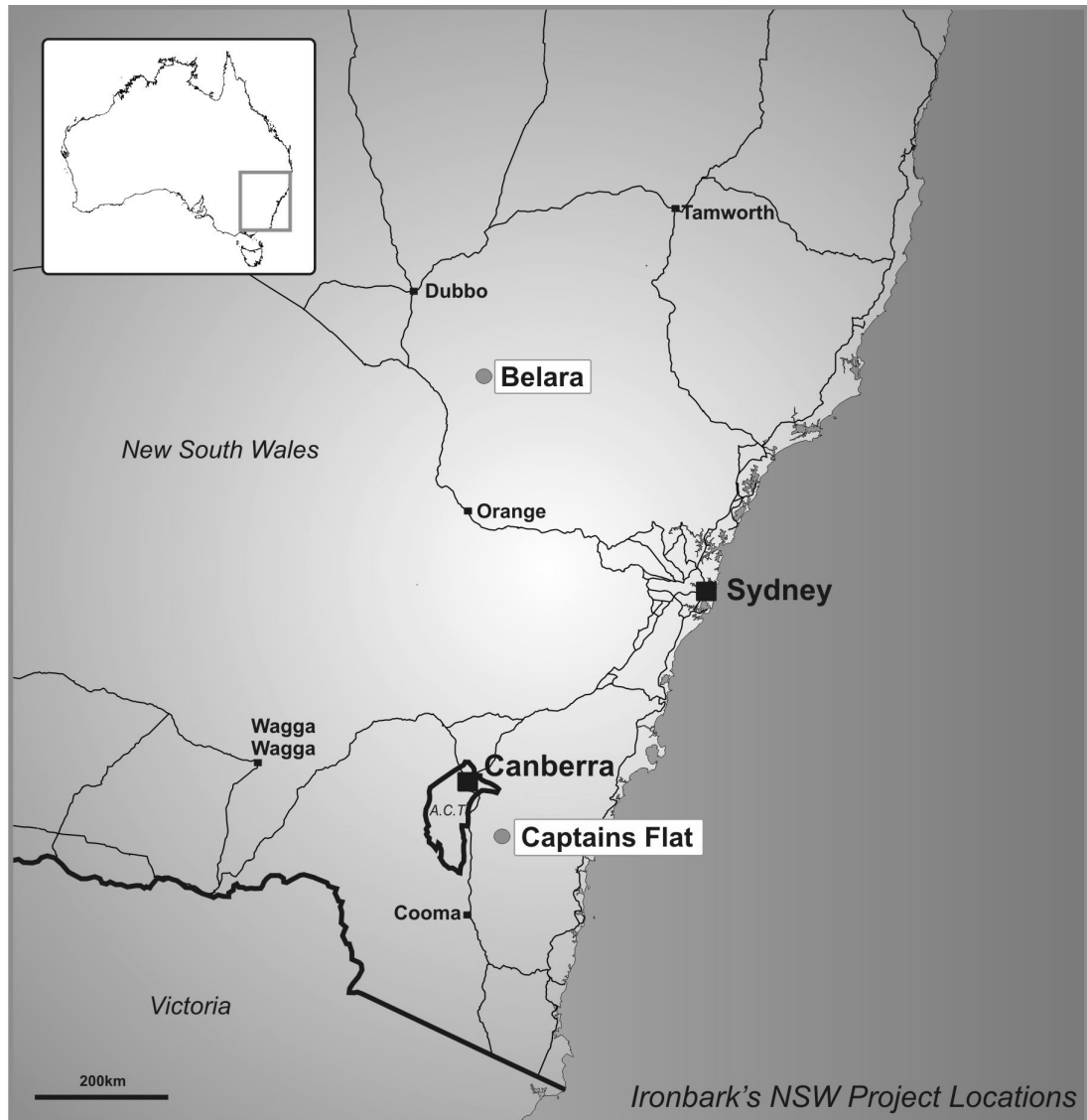




Figure 2 Locality Map of the Australian Projects





3. CITRONEN FJORD BASE METAL PROJECT, GREENLAND

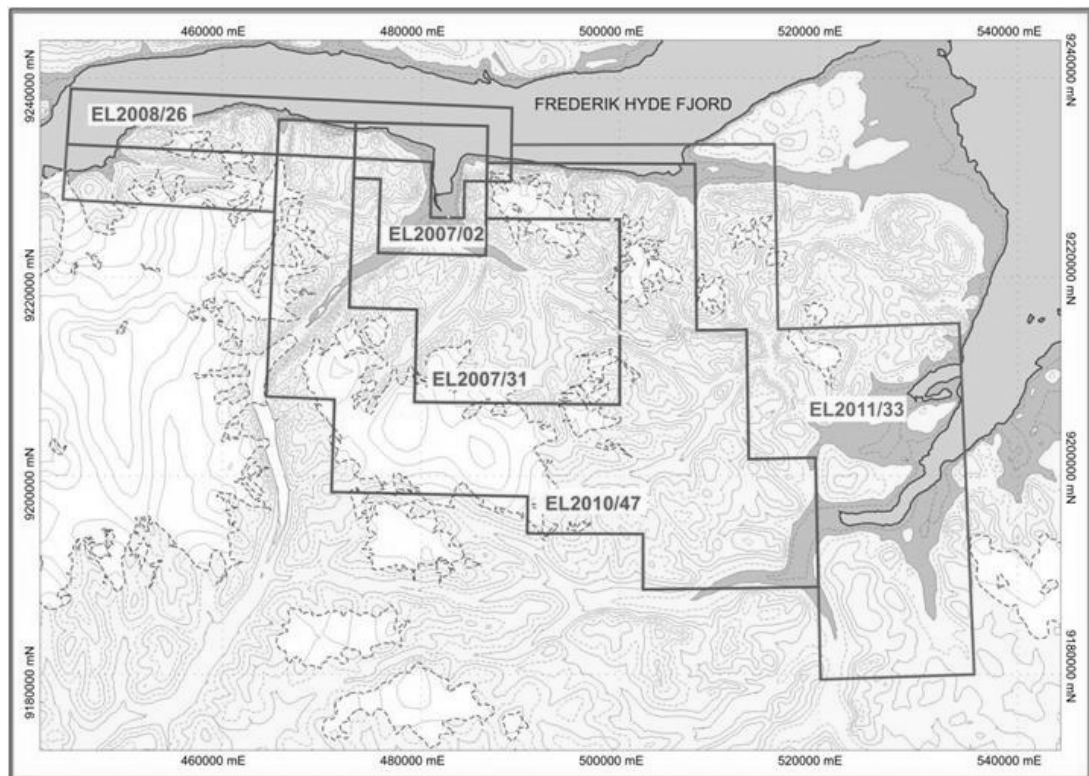
3.1 Introduction and Location

The Citronen Fjord Base Metal Project is located in Northeastern Greenland - Centred at: Latitude 83°05'N and Longitude 28°15'W on the south side of Frederick E Hyde Fjord, a large inlet that opens onto the Wandel Sea

3.2 Tenure and Physiography

The Citronen Fjord Project is comprised of four granted exploration licenses and one pending exploration licence with a total area of 2,912km². Ironbark Zinc Limited owns and manages 100% of the project. A tenement schedule is presented in Table 22 below with a locality map of the tenements presented in Figure 3.

Figure 3 Ironbark Zinc Limited Tenement Location Plan - Citronen Fjord Project





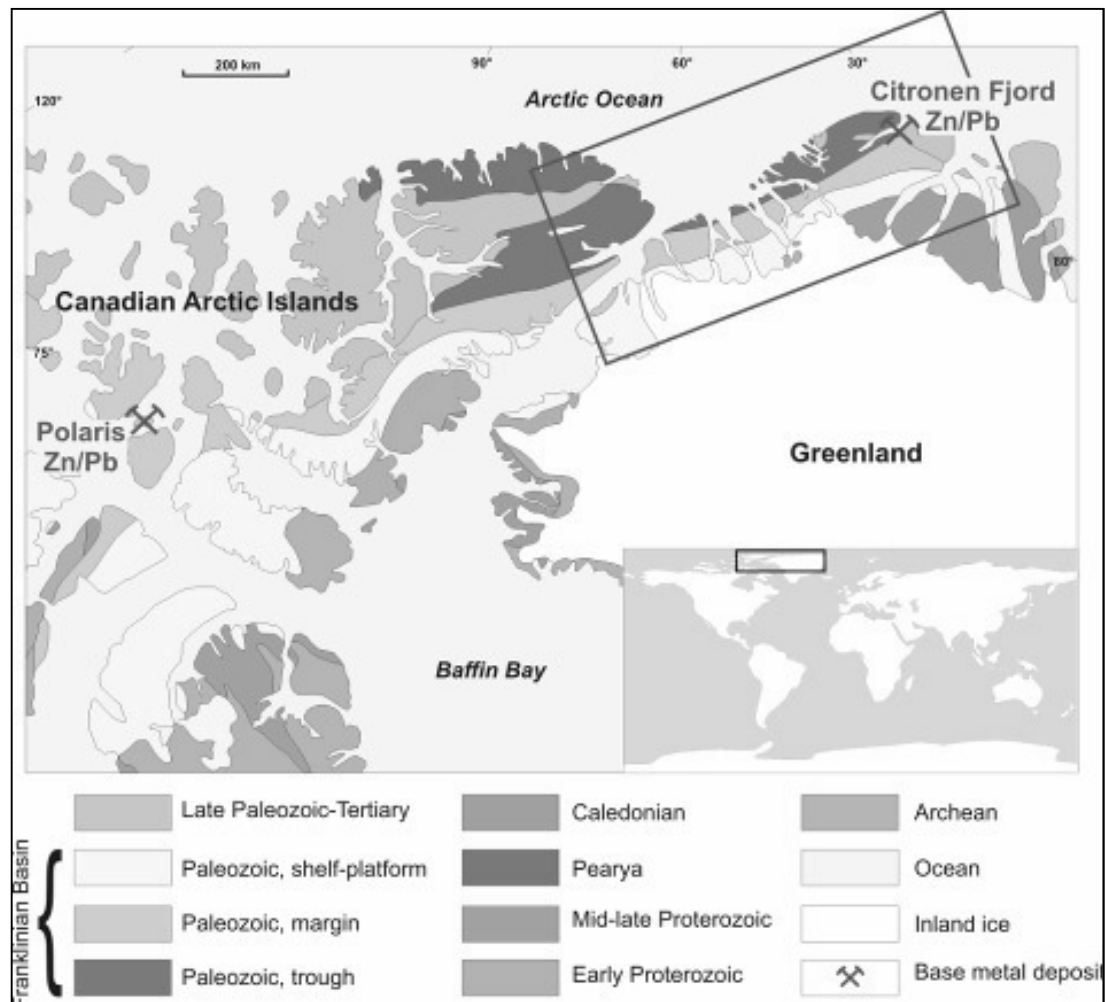
3.3 Geology and Mineralisation

3.3.1 Regional Geology

The Citronen Fjord Base Metal deposit lies within the Palaeozoic Franklinian Basin, a continental scale sedimentary basin, which extends some 2,500km westwards through Northern Greenland and into the Arctic Islands of Canada (Figure 4).

Two major sedimentary facies associations are recognised in the area around Citronen Fjord. To the south, bounded by the Navarana Escarpment is a shallow marine marginal carbonate sequence of rocks. The Citronen Fjord Zinc Deposit lies within Ordovician deep water argillaceous rocks, interbedded with carbonate debris flows sourced from the carbonate platform to the south. This is overlain by sandstone turbidites of Silurian age formed during the Caledonian Orogeny. The basin was deformed during Devonian-Carboniferous times, which is expressed as southerly facing folds and thrust faults in the area around Citronen Fjord.

Figure 4 Regional Geology of Northern Greenland (after Kriege, 2011d)





3.3.2 Local Geology

The stratigraphic column for the host rock sequence at Citronen is shown in Figure 5 and a geological map of the area in Figure 4. The oldest rocks within the project area are the siltstones of the Buen Formation, which are of Lower Cambrian age. Three informal units have been identified within this formation, the lower Green Siltstone, the Cigar Debris Flow, and the Black Siltstone (in which the Trilobite *Olenellus* has been identified).

Overlying the Cambrian sequence (but not in a stratigraphic contact) lies the Ordovician Admundsen Land Group, which hosts the massive sulphide zinc mineralisation. This is made up of a sequence of variably calcareous and carbonaceous mudstones and shales, which are interbedded with three limestone/dolomite-clast debris flows that have been derived from the carbonate platform to the south. These form distinctive marker horizons throughout the project area. From the base they are called the Lower, Middle and Hanging Wall Debris Flows (Figure 6).

The base of Hanging Wall Debris Flow is taken to be the base of the overlying Silurian Merqujôq Formation, which is comprised of siltstones and sandstone turbidites. A fourth major debris flow - the Upper Debris Flow lies within this formation.



Figure 5 Citronen Fjord Base Metal Project Local Geology

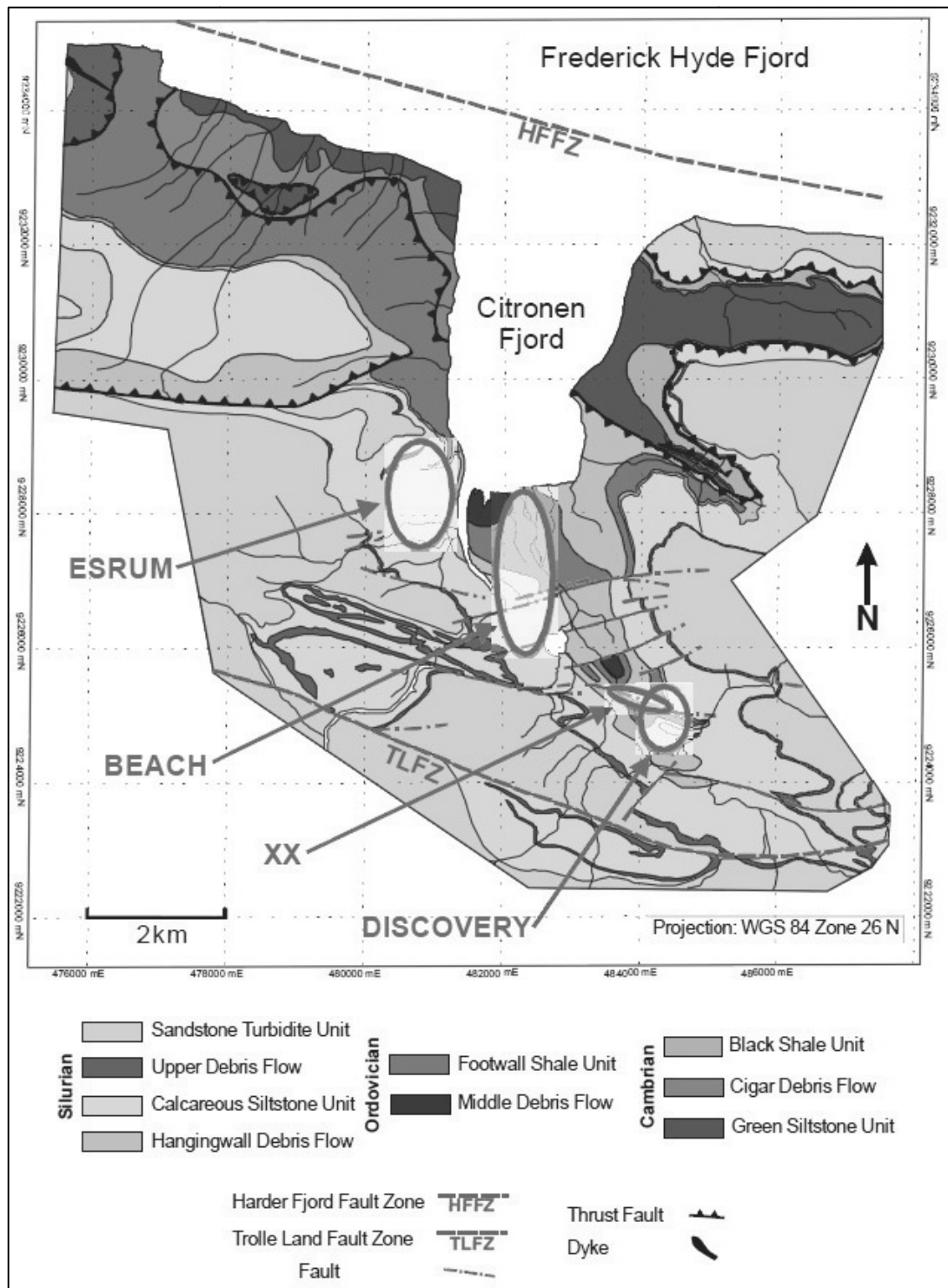
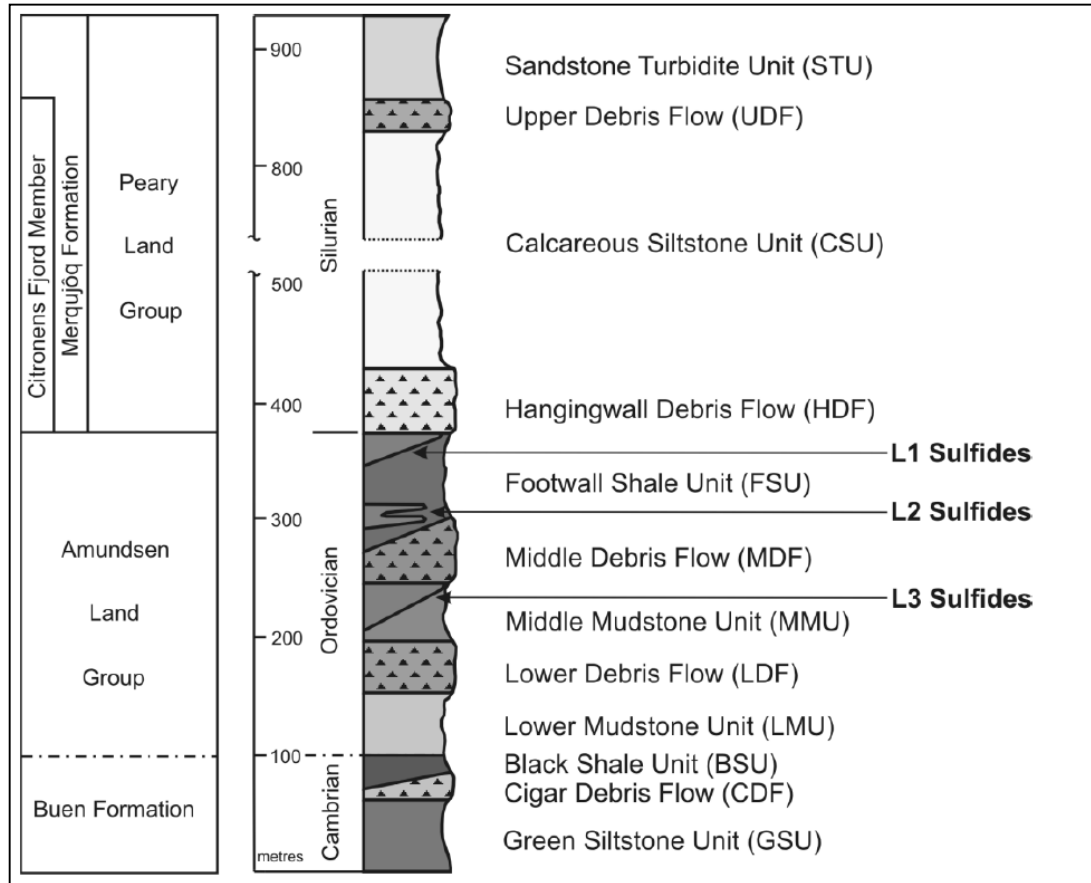




Figure 6 Citronen Fjord Cambrian-Silurian Stratigraphic Column (after after Kriege, 2011d)



The Citronen Fjord Zinc Deposit is located near the eastern end of the Franklinian Basin, within a few kilometres of the Navarana Fjord Escarpment, and is situated between two major Faults - the Trolleland and Harder Fjord Faults (Figure 5). These faults have been interpreted to be major controls on the localization of massive sulphide mineralisation at Citronen Fjord, and therefore must date from at least early Palaeozoic times.

To the south the Trolleland Fault strikes northwest and in the vicinity of Citronen it swings to a more west-northwest to westerly direction. The Harder Fjord Fault, on the northern side of Hyde Fjord strikes in a west-northwest to westerly direction. Two north-northeasterly striking faults control localisation of mineralisation within the Beach and Esrum Zones, and appear to be linking secondary structures between the Trolleland and Harder Fjord faults. This suggests that at the time of mineralisation there was an extensional basin with a strong component of sinistral strike slip.

The area was also affected by two significant post-mineralization structural events. The Ordovician to Silurian aged Caledonian Orogeny resulted in the deposition of the Merqujôq Formation turbidites as a result of uplift in the east. The Devonian Ellesmerian Orogeny produced the southwards directed folds and thrusts seen within the project area. Despite these post-mineralisation deformation events, mineralization is generally planar and tabular in geometry and undeformed.

North Greenland is moderately seismically active, with data suggesting that the Trolleland and Harder Fjord Faults may still be active.



3.3.3 Mineralisation

Base metal mineralisation at Citronen Fjord is primarily contained within Amundsen Land Group mudstones. Three main stratigraphic horizons of mineralisation have been identified by Platinova (Figure 6). Level 1 Sulphides, which make up the gossans at the Discovery Zone, lie immediately beneath the Hangingwall Debris Flow within the Footwall Shale Unit. Towards the central and lower part of the Footwall Shale Unit is the Level 2 Sulphide horizon, which makes up much of the Beach Zone and is also found at the Esrum Zone. Immediately below the Middle Debris Flow within the Middle Mudstone Unit lies the Level 3 Sulphides which is the most widely spatially distributed horizon. Level 3 Sulphides are found at Discovery, Beach, Esrum and also the Western Gossans. Known sulphide and zinc mineralization occurs over an area of 12km in strike.

Three main styles of sulphide mineralization have been identified at Citronen Fjord: mound-like masses that formed above sea-floor vents; interbedded sulphides that form laminae and beds within the mudstone sequence and were deposited as broad aprons to the sulphide mounds; and cross-cutting, epigenetic mineralisation that is primarily found in the debris flows and probably represents feeder systems for overlying sea-floor vents.

The main sulphides present at Citronen are pyrite, sphalerite and galena. Both sphalerite and galena are generally fine grained. Pyrite dominated sulphide mineralisation takes on a brassy yellow hue and changes in colour to a pale brown and then to a pale pink/red with increasing zinc grade.

The massive sulphides are generally medium grained and weakly bedded or have little sedimentary structure. They often display distinct dendritic pyrite with voids filled with calcite or dolomite. Zinc grades are generally low, ranging from 1% to 3% Zn. The massive sulphides are interpreted to be vent-proximal pyritic sulphide mounds, with the dendritic textures representing remobilization by pulses of sulphide bearing fluids.

The bedded and laminated sulphides contain higher concentrations of sphalerite and galena than the massive sulphides. Bedded sulphides are characteristically planar-laminated and thin-bedded, with individual layers ranging from 1mm to 1m, although most layers are tens of centimetres in thickness. Zinc grades generally range from 1% Zn up to 30% Zn for individual layers.

Within the debris flows, matrix fill and replacement type mineralisation occurs, with its distribution strongly controlled by steeply dipping NW striking faults. This style of mineralisation is much coarser grained than bedded and massive sulphides, with very coarse grained sphalerite observed. It is interpreted to be epigenetic in origin, and may represent feeder zones to the overlying massive and laminated sulphides. The most well drilled and understood of these is called the Discovery "XX" Zone, where mineralisation is controlled by a NW striking fault within the Middle Debris flow. Volumetrically this style of mineralisation is relatively insignificant, constituting less than 1% of the global zinc resource tonnage.

3.4 Exploration History

Details of the historical exploration at the Citronen Fjord project are summarised in Table 3.



Table 3 Exploration History - Citronen Fjord Base Metal Project		
Date	Company	Findings
1980s	Greenland Geological Survey	Identified zinc-copper mineralisation in the Hyde Fjord area.
1993-1997	Platinova A/S	The Citronen zinc-lead mineralisation was discovered in May 1993 by a reconnaissance mapping program following up gossans identified by earlier Greenland Geological Survey mapping. Platinova A/S carried out extensive geological mapping, geophysics and drilling programs during the summers from 1993 to 1997, in which over 33,000 metres of diamond drilling in 143 holes was completed. Five main prospects were identified (Discovery, Beach, Esrum, XX Zone and the Western Gossans). Platinova went into Administration in 2000 as it was unable to raise further funds in the difficult economic climate at the time.

The project area titles reverted to the Greenland Government when Platinova A/S went into administration. The area was acquired in 2005 by Globestar Resources and then by Bedford No.3 in 2006. Ironbark acquired it from Bedford No3 in March 2007.

3.5 Current Exploration 2007 - 2010

2007

Ironbark during the summer of 2007 completed an intensive sampling program of previously un-assayed Platinova drill core and constructed a new exploration camp. Over 2,500 1m samples of previously unsampled drill core was submitted for assaying, and some core was brought back to Australia for metallurgical testwork. Based on this new information Ironbark contracted Wardrop Engineering Inc (Wardrop) to complete resource estimate. Wardrop calculated a NI43-101 and JORC compliant global (inferred plus indicated) resource of 72.5 Mt @ 4.2% Zn and 0.55% Pb (using a 3% cut-off).

2008

Ironbark completed an 11,000m, 43 diamond drill hole program, which focused on expanding the Citronen resource base. Extensions to the Beach, Discovery and Esrum Zones were identified, and a new prospect was identified (Trilobite Valley). Based on this a new JORC 'compliant' resource for Citronen (November 2008) was calculated in-house using Vulcan software and Ordinary Kriging interpolation technique. An Indicated Resource of 50.2 Mt at 4.5% Zn and 0.5% Pb and Inferred Resource of 51.6 at 3.8% Zn and 0.6% Pb using a 2% cut-off was reported. Work then began on a Pre-Feasibility Study.

2009

Ironbark completed a small drill program of 23 holes at the Beach Zone, for a total of 2,345m. This program was designed to test high-grade continuity and also obtain additional material for Metallurgical and geotechnical testwork.

2010

Ironbark conducted a large drill program in 2010 with 95 holes drilled for a total of 17,558m, bringing the total metres drilled on-site to over 63,000m in 305 holes. Drilling focussed on infill drilling of the Beach and Discovery Zones to improve geological confidence. Work began on a feasibility study, with associated engineering, geotechnical and environmental work carried out on site during the field season. A new zone of mineralisation was identified to the south of the Discovery Zone. Based on the new



drilling information a Measured Resource of 33.2 Mt at 3.8 % Zn and 0.5% Pb, an Indicated Resource of, 52.2 Mt at 3.7% Zn and 0.5% Pb and an Inferred Resource of 47.2 Mt at 3.3% Zn and 0.4% Pb was estimated using a 2% cut-off and using the Ordinary Kriging interpolation technique.

3.6 Project Potential and Mineral Resource Estimate

Note Competent Person statements are listed in Section 2.5.

3.6.1 Citronen Fjord Resource Estimates

In late 2010, Ironbark Zinc Pty Ltd commissioned Ravensgate to assist with a resource model revision on Ironbark's previously estimated resource (April 2010) for the Citronen Fjord Zinc Project. Ironbark requested Ravensgate to use the same parameters, methodology and interpretation that were used by Ironbark for its 2008 "in house" JORC (2004) compliant resource model and also a set of similar parameters defined for the more recent April 2010 up-date. The new modelling described all up-dates to the geological model and associated Zn mineralization interpretation. This was done in conjunction with the addition of a small amount of new drilling data obtained from the more recent drilling carried out in 2009 and 2010. Ravensgate has previously independently reviewed the geological and geostatistical data used in this model update (Hyland, 2009) and has also subsequently updated its independent review of the interpolation and estimation methodology provided by Ironbark. Ravensgate endeavoured, by making all reasonable enquiries, to confirm the authenticity, accuracy and completeness of the technical data upon which the resource modelling and reporting were based.

The newly developed resource block model and associated resource estimate for Citronen was primarily intended for Ironbark's ongoing planning and engineering purposes. Ironbark with the independent assistance of Ravensgate were able to confirm and up-date resource estimates using resource block modelling construction methods in line with industry best practice standards. The additional work required additional formal reporting of resources according to JORC and ASX reporting guidelines accordingly.

The mineralised resources reported from the December 2010 resource, were prepared in 'compliance' with the guidelines of the JORC Code (Dec 2004) which pertains to Independent Expert Reports on mineralized resources and reserves. Ravensgate was not required to assess or verify the ownership or the status of tenure or any related access issues and furthermore stated they are not qualified to do so. Ravensgate was also not required to assess the valuation of the project with respect to the ValMin code at the time of the December 2010 Resource Reporting work.

3.6.1.1 Citronen Resource Block Model Construction and Resource Estimate.

Drilling

The December 2010 Citronen Resource estimation is based upon 63,797m metres of diamond core drilling in 305 holes (including re-drills) drilled from 1993 to 1997 and from 2008 to 2010.

The project was originally drilled by Platinova A/S between 1993 and 1997 who completed 32,829m of drilling in 147 holes (holes CF93-001 to CF97-143). In 2008 Ironbark completed a 43 hole, 11,230m diamond core drilling program (holes CF08-144 to CF08-181). In 2009 Ironbark completed an additional 23 hole, 2,345m drilling program (holes CF09-182 to CF09-204).

The majority of diamond drilling at the project has been completed using BQ (36.5mm diameter) diameter drill core. From 2008 to 2010 Ironbark completed a series of larger diameter NQ (47.6mm diameter) and HQ (63.5mm diameter) drill-holes to obtain metallurgical and geotechnical samples. The upper portions of holes drilled into gravel overburden were drilled either using a tricone (roller) bit and then by using a casing advancer or shoe-bit until bed-rock was intercepted, then diamond coring was used for



the remainder of the hole. Due to the persistent perma-frost at the project, holes were drilled using heated water, with added calcium chloride salt (CaCl) to assist in difficult drilling conditions.

A nominal 50x50m drilling pattern covers most of the mineralization zones within the Citronen Project area. The Esrum area is not as densely drilled with a nominal 200x200m pattern.

The majority of drill-holes are vertical which is close to the optimal orientation for intersecting the generally horizontally oriented mineralized horizons. Holes were surveyed every 50m down-hole using a Reflex digital single shot camera. Drill core was orientated where possible using a Reflex core orientation tool.

In 2009 and 2010 Ironbark also drilled 27 angled holes to obtain geotechnical information and test short range grade variability.

Figure 7 below represents a plan view of the mineralization zones targeted to date by the majority of drilling carried out at the Citronen Zn & Pb Project.

Figure 7 Plan view of Citronen showing new fault zone interpretation (dark pink), Sulphide mineralization zones (Zn 2%) are shown in pale yellow

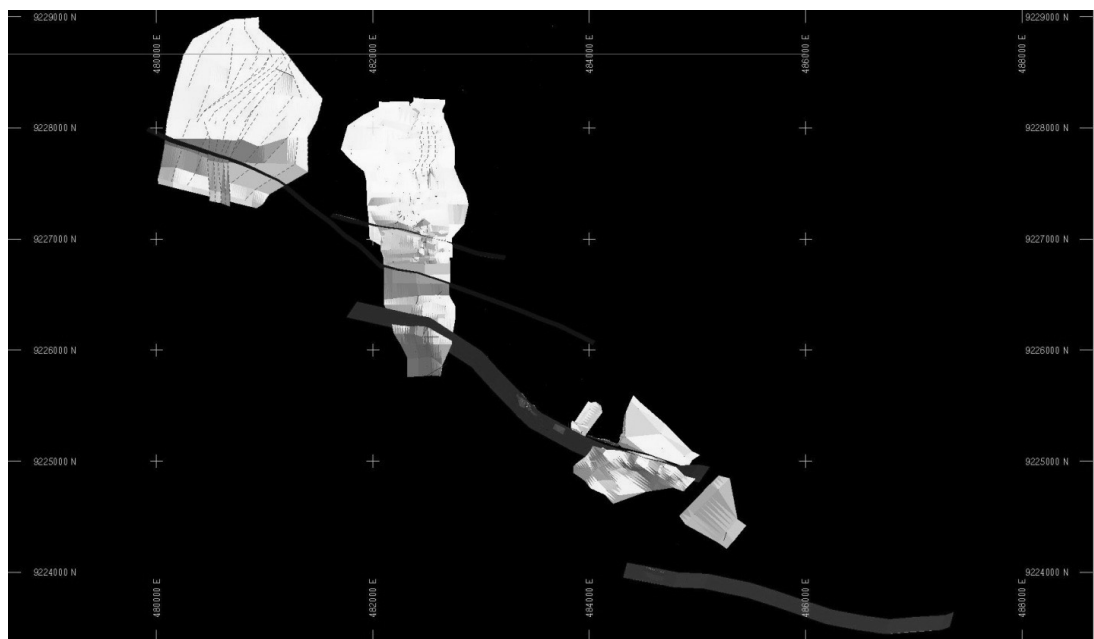
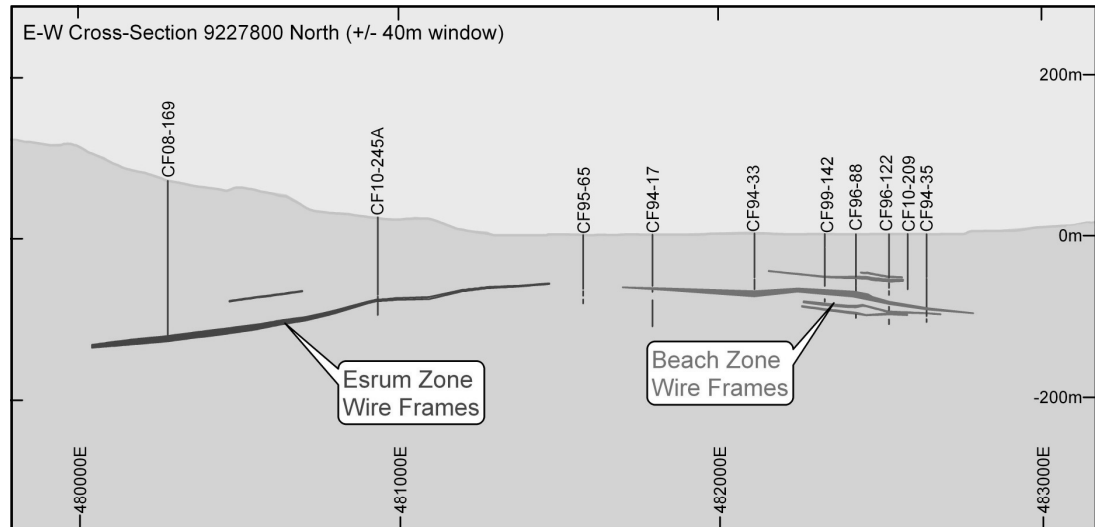




Figure 8 below is of a typical cross-sectional view of the mineralization zones targeted to date by the majority of drilling carried out at the Citronen Zn & Pb Project.

Figure 8 Typical Cross Section of Citronen mineralised zones showing drill-hole traces, and topographic surface



Drill-Hole Collar Coordinate Checking & Survey Data Analysis

Drill-holes drilled from 2008 to 2010 were all collar surveyed after drilling was completed with a Garmin GPSmap 60CSx hand-held GPS. Many holes were also surveyed and cross-checked in 2010 as part of the site topographic survey program. The grid used was UTM Zone 26N (WGS84 Datum). Drill-holes completed by Platinova from 1993 to 1997 all utilised a local grid and this information has since been transformed to the UTM grid. Almost all of these older holes were located and surveyed with a GPS in 2007 and 2008 (125 of 145 holes). The local grid was very accurate, and holes were within 3m of projected positions. All of the holes used in the resource modelling and estimation have been located and surveyed. The GPS accuracy is within two metres due to the good satellite coverage in this high latitude area.

In 2010 Ironbark completed a detailed site survey and generated a new 'sub one metre' accuracy site topographic surface. The RL's of each drill hole were then more accurately determined by registering the collar points onto this dtm topographic surface.

Sampling & Assay Data

The Citronen Drilling database contains 7,061 half diamond drill core samples. The majority of samples are half-cored 1 metre BQ core samples, which are generally around 1.5kg in weight. For the fine grained homogenous nature of Sedex mineralisation, this sample volume is generally considered to be adequate for accurate resource estimation.

From 1993 to 1997 Platinova took 1,540 samples from holes CF93-01 to CF97-143. Samples for analysis were selected by geological logging assisted by a portable XRF analyzer. Generally Platinova focussed on sampling only the higher grade mineralisation. Sample intervals were on average one metre in length. Half drill-core samples were analysed by Chemex Laboratories of Vancouver, Canada for Ag, Cu, Pb, Zn using Aqua Regia digest and AAS method, with Fe% estimated by Peroxide NaOH fusion and titration.

In 2007 Ironbark completed an additional sampling program, taking 2,765 new samples from the previously unsampled Platinova drilling. This was done to develop a better understanding of the tenor and distribution of zinc and lead mineralization for new



resource calculations. The drill core was examined, photographed and the mineralized intervals of interest were marked up for sampling. Sample widths ranged from 0.15m to 1.35m, but were generally 1 metre. These selected intervals were cut and half core sent to ALS Chemex Laboratories of Vancouver BC for assay by four-acid digestion and atomic absorption spectrometric analysis for Zn, Pb and Fe.

For the 2008 to 2010 programs, drill holes were geologically logged and 2,762 samples were selected for analysis with the assistance of a Niton portable XRF analyser. Most of the 2010 sampling was primarily carried out using half BQ drill core and NQ drill core and most of the sample intervals ranged from 0.3m to 1.9m and averaged one metre. Half drill-core samples were sent to ALS Chemex Laboratories in Ojebyn, Sweden for sample preparation, with final analysis using ore-grade ICP Fusion at ALS Chemex in Vancouver, BC, Canada. Samples were analysed for Al_2O_3 , As, CaO, Co, Cr, Cu, Fe, Fe_2O_3 , K, MgO, MnO, Ni, P_2O_5 , Pb, S, SiO_2 , TiO_2 and Zn.

Sampling Quality Assurance & Quality Control (QA/QC)

The earlier Platinova assay data did not contain any independent QAQC sample checks or review material. Assay data quality was primarily based upon the laboratory's (Chemex of Vancouver, Canada) internal quality control standards. As a cross check of Platinova's data Ironbark took the remaining half core for 15 of Platinova's samples and had it assayed by the same laboratory (now ALS Chemex of Vancouver, Canada). Comparison of the Ironbark and Platinova assay data for Zn showed a 0.99% correlation co-efficient for Zn and 0.98% for Pb.

In 2007 as part of Ironbarks core-sampling program a total of 54 certified laboratory standards were submitted and all returned assay levels within acceptable limits (ie within 2 standard Deviations).

During Ironbarks 2008 drilling campaign a total of 31 certified laboratory standards were submitted with core samples to ALS Chemex and again all standards were returned within acceptable limits.

An additional 23 certified laboratory standards were submitted as part of the 2009 drilling campaign with core samples sent to ALS Chemex and subsequently returning assay levels within acceptable limits.

For the 2010 sampling programs, Ironbark submitted 50 certified laboratory standards which also reported within acceptable limits. Blanks and duplicates were also routinely sent with each sample job dispatch.

Geological Modelling

Geological modeling was carried out using mapping information derived from very good outcrop exposure, as well as other geological logging data, digital core photographs and a good understanding of the deposit geology. The earlier established 2008 3-D geological model was updated and refined by Ravensgate using new drilling information from the 2009 and 2010 drilling programs.

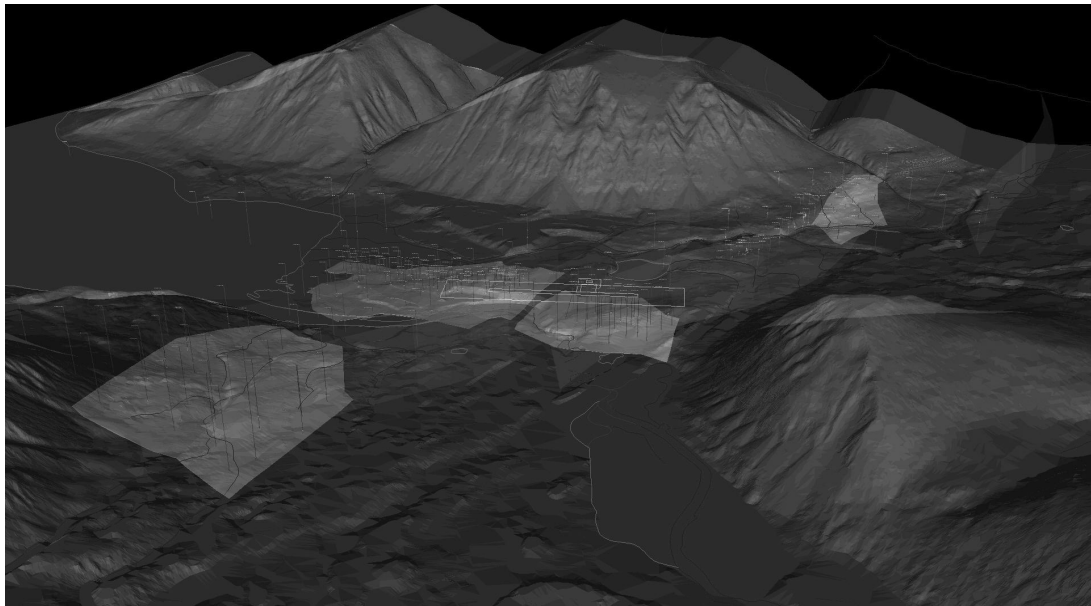
The three major debris flows (the Hanging Wall, Middle and Lower) were wire-frame modelled, and were used as guides in correlating the various mineralized stratigraphic horizons. Some refinements to the fault zone models based on geological data collected on site during 2010 was also undertaken. The changes included changing of the fault zone separating the Beach North and Beach South zones which had previously been modeled as striking east and is now interpreted to be striking southeast. Finally, the base of the glacial gravel overburden was modelled so that overburden areas could be excluded from subsequent resource estimation. Figure 9 below shows the general configuration of mineralisation and fault zones at Citronen as modeled for the December 2010 studies.

Mineralisation zones were wire-framed based on sectional interpretation of Zn mineralisation at a 2% Zn lower cut-off. Where possible a higher 3.5% Zn lower cut-off was used to define 'high grade' contiguous zones within the 2% mineralization domains. These



wire-frames were used to code the composite data-sets used for statistical review and block model interpolation.

Figure 9 General Site “Oblique View” of Citronen Zn & Pb Project Area - Showing proximity of Major 3.5% Zn Mineralogical Zones (Light Blue) with local topographic surface and major hydrographic features - (View direction Azimuth = 70 degrees - Dip = -25 degrees)



Compositing, Spatial Domaining and Statistical Analysis

A standard 1m length down-hole composite data set was generated from the drilling database. The 1m composite data was then ‘coded’ to initially examine the localized probability distribution statistics for each of the Discovery, Beach and Esrum zones. The 1m composite length is a suitable length for further modelling work as it was deemed that this length was short enough to adequately honour the dimensions of geological and mineralisation domains being modelled.

The allocation of a set of geological flagging codes to the composited drill-hole interval was undertaken by the direct intersection of composite drill-hole traces contained within the wire-framed geological triangulations and were effectively designated as composite centroids ‘in or out’ of the 3-D ore zone shells.

A total of 24 low grade’ (2.0% Zn) and 5 ‘high grade’ (3.5% Zn) ore zone shells were examined. The deposit statistics for all areas were thoroughly reviewed for sample support considerations with the view to considering the distribution of outlier grades.

Composite coding was applied as follows:

- The main ‘LG’ Zinc mineralisation wire-frames (ZONE=1→24) and;
- Internal ‘HG’ Zinc mineralisation wire-frames (ZONE=3, 5, 7, 10, & 24); and
- The various mineralization orientation AREA domains:
 - Beach AREA Domains : AREA=1→3
 - Discovery AREA Domains : AREA=4→5
 - Esrum AREA Domains : AREA=6→7



After examining the localised statistics for all three main Citronen deposit areas, it was observed that the majority of mineralised domains displayed relatively low composite population variances. The distribution of Zinc (and Lead) within the defined domains at Beach, Discovery and Esum is observed to be relatively predictable and mostly display low coefficients of variation (CV ~0.4-1.0) particularly at the nominal zinc lower cut-off definition level.

The coded composite data was plotted on standard Log Probability plots which were used to help determine the overall statistical parameters of the distribution. Composite population 'outlier' values were examined and appropriate variogram grade calculation ranges were defined. Declustering analysis was also performed on preliminary data and showed that the declustered mean for most areas did not vary greatly from the 'raw' mean, also pointing to the general homogeneity of the Zn and Pb distribution within most parts of the deposit.

The spatial distribution of zinc composites can be locally variable in places. This variability is possibly related to the effects of localized faulting and perhaps, to a lesser extent, as an inadvertent artefact of the irregular drilling pattern in a few locations. Ravensgate's opinion following the 2010 modelling up-date / review was that there were no major concerns identified that would require use of any distribution adjustment technique to be used in block modelling, such as block 'discretisation averaging'.

Variography

Ravensgate carried out an up-dated review of the deposit variography and modelled representative Semi-variograms for most parts of the Citronen deposit. The 'down-hole' and 'between-hole' variograms derived were useful for understanding the anisotropic spatial Zn distribution and associated mineralization of the deposit. The between hole semi-variogram data that Ravensgate has derived has been used directly to 'calibrate' the search ellipsoid 'distance to composite'.

The following Table (Table 4) describes the derived down-hole variogram parameters for the various deposit domains at Citronen. The down-hole information shown here was also used to define the 'between hole' variograms and used to directly assign 'nugget', 'sill' and 'range' values to the Ordinary Kriging run-file parameters used during block model interpolation.

Table 4 Citronen - 'Down-Hole' Variogram Model findings (MineSight - M303V1 - 'Variograms for Composites') - Using Composites Coded within 2% Zn Shells							
Deposit Area	Element Item	ZONE	Azim	Dip	Nugget	Sill	Range (m)
Beach Level 1	Zn	1-2	0	-90	1.2903	3.2246	5.50
Beach Level 2	Zn	3-4	0	-90	7.1854	13.6644	4.90
Beach Level 2	Zn	5-6	0	-90	2.8680	2.9587	3.40
Beach Level 3	Zn	7-9	0	-90	1.8605	4.5609	3.50
Discovery Level 1	Zn	10-12	0	-90	1.7311	3.0852	5.50
Discovery Level 2	Zn	13-15	0	-90	0.9302	1.4192	3.90
Discovery XX (All)	Zn	16-21	0	-90	7.3868	16.4487	5.30
Esum Level 2	Zn	22-24	0	-90	1.6296	2.1803	3.50

Following all of the statistical and variography reviews it was determined that Ordinary Kriging interpolation approach would be suitable for block modelling and resource estimation and that was used for the December 2010 modelling up-date.



Ravensgate considers that the currently available drilling density of 50x50m (or closer) for the Beach Zones is adequate for the definition of resources as Measured, Indicated and Inferred where appropriate, with the caveat, that consideration must be given to all other 'modifying factors' with respect to the JORC Code. Ravensgate is of the opinion that it is still necessary to consider locally any details related to mineralisation variability as one of the main 'modifying factors' and it is proposed that Ironbark carries out further detailed sampling in selected locations to closely observe spatial variability.

The 340m interpolation range used for primary interpolation runs was based on the broad 'between hole' variography and is also a practical distance required to adequately 'fill' blocks within mineralization shells for each main metal item in the block model. The nominal 50x50m drilling pattern present throughout the main parts of the Citronen area is adequate to attain adequate numbers of sample composites used within interpolation search ellipsoids.

The reasonably consistent drilling density available for the Beach and Discovery zones combined with observations with respect to the overall lower deposit statistical variances generally demonstrate good mineralisation continuity.

The Esum zone is overall quite deep and thus has not yet been drilled with a close spaced drilling pattern. The relatively long 340m range used in interpolation is still adequate to 'capture' a significant number of composites in any given search ellipsoid using the relatively sparse 200x250m drilling pattern. The available drilling pattern at Esum does not presently allow for reliable assessment of the representativeness of sampling or local or longer range mineralisation continuity.

Whilst it is desirable to arrive at a prescriptive drill pattern size used to define resource categories it is often not possible to do so for all parts of a deposit. For Citronen, it is Ravensgate's opinion that coverage using a 50x50m drilling pattern should be aimed for, however for the deeper Esum zones for example, if this zone is not likely to be developed for mining immediately, a compromise with drilling density might be arrived at. Ravensgate is also of the opinion that increasing drilling density to approximately 150x150m for Esum will probably be adequate to bring more of this zone up to the category of Indicated and perhaps Measured resources. Ravensgate also considers that a 50x50m pattern should be the minimum for considering up-grading resources to the Measured category at a future time for full feasibility studies, assuming also that all other resource reporting modifying factors are considered carefully.

Bulk Density Determination

To calculate the bulk density of mineralisation, Ironbark took both empirical measurements of bulk density and also calculated the theoretical density based on the assayed value.

Ironbark took 275 empirical measurements from six drill holes encompassing the major mineralisation styles and lithologies. Measurements were taken with electronic scales and a cradle to measure the dry and water immersed weights of the individual lengths of core. Core lengths ranged from 10cm to 60cm. Empirical specific gravity measurements were calculated from these readings. In addition as part of Ironbark's metallurgical test work program, bulk density of various composites of drill core used in test work was estimated. Beach Level 2 composites averaged 3.62, Beach Level 3 composites averaged 3.73, Esum averaged 3.68 and discovery 3.71.

The bulk density measurements were composited to the same length as the assayed sample intervals to enable comparison between the "Measured" specific gravity (ie physically measured) and the "Calculated" specific gravity (ie calculated from the assay values). Table 5 shows a summary of these results for mineralisation greater than 2% Zinc. Ravensgate recommended completing additional physical density testwork in 2011 to validate these assumptions.



As the variation in density is directly related to the amount of sulphides and mudstone within each mineralised zone the calculated specific gravity was used in the resource model. The Zn, Pb, and Fe values estimate for each block were used to create a calculated density in the model. Theoretical (“calculated”) densities for each assayed interval were calculated by using a formula using the assayed zinc, lead and iron values. The formula assumes that the zinc is all reporting to sphalerite (density of 4.05), lead reports to galena (density of 7.4), remaining iron reports to pyrite (density of 5.01), and the remainder is mudstone gangue (density of 2.78). This approach was thought to be more accurate than using an averaged density value for each domain.

Table 5 “Measured” Specific Gravity and “Calculated” SG values for Citronen Drilling core for Zn values greater than 2%

		Measured SG	Calculated SG
Lithology/oretype	# composites	For MZ (Zn>2%)	For MZ (Zn>2%)
Mudstone	5	2.8	- (na)
Debris Flow	3	2.78	- (na)
Debris Flow Sulphides	29	3.23	3.37
Level 2 and 3 sulphides	48	3.47	3.68

Block Model size & Block dimensions

After consideration of the data density and ore zone geometry factors it was decided that an optimal estimation block size of 10m x10 m x 2.0m - East (X), North(Y), Elev(Z) would be used for the global Citronen model. This block size was selected primarily to achieve better mineralization domain coding resolution whilst not unduly compromising local sample and block support considerations.

Block Model Interpolation Technique Selection

Ravensgate used the Ordinary Kriging interpolation technique for all block model interpolation and generated estimated item values for Zn, Pb and Fe which were used for all subsequent resource reporting. At Ironbark’s request an additional inverse distance squared interpolation was run in parallel to the kriging estimates for the purpose of comparison with Ironbarks earlier 2008 resource estimations.

Model Construction Method and Coding

One large block model was constructed capturing all the main Citronen mineralized zones including the Beach, Discovery and Esrum zones. Numerous block model items were also assigned for use in interpolation including the main zinc (Zn) item [ZNKR1 and ZNKR2] as well as items for lead (Pb) [PBKR1 & PBKR2] and iron (Fe) [FEKR1 & FEKR2]. The parameters and variables used for the block model constructed are listed in **Error! Reference source not found..**

The following is a brief summary of the methods and assumptions employed in construction of the up-dated Citronen block model:

- Re-Construction and validation of the up-dated Citronen drilling data set.
- Modification and Development of 3D geology lithology domains and structures as necessary as a consequence of introducing the new 2009 and 2010 drilling data.



- Validation, up-dating and re-construction of some of the mineralisation domains at both 2% and 3.5% edge cut off levels. Validation of solids for geological integrity.
- Block model constructed and variables coded with the various domains, surfaces and solids for both the 2% and 3.5% Zn shell domains.
- Model blocks were coded with corresponding ZONE, AREA and GEOL codes as well, as being assigned an associated 'captured' block percentage within any given mineralization domain. Mineralization coding for all mineralization zones was undertaken with a precision in MineSight software of +/- 1%.
- Composite assay files created, and each domain flagged with domain code.
- Construction of block estimation run files with appropriate parameters.
- Block model estimation run, using representative 'single pass' ellipsoids assigned according to AREA domain to account for variable mineralization orientations. Inverse distance squared interpolations runs carried out only for comparison purposes.
- Review of modelled blocks on screen and via cut-off reports to ensure interpolation has been carried out correctly.
- Review of coded blocks on screen and check resource summary tables at various lower cut-offs.
- Script run to assign bulk density values to appropriate mineralization domains using measured and assumed density factors adjusted with local mineralization grades from Zn, Pb and Fe items.
- Review of ancillary item statistics required for assignment of Mineralization classification codes using script runs to assign QLTy Code Item.
- Grade tonnage reports generated and tabulated. Comparison of different interpolation techniques.
- Visual cross checking of modelled blocks grades in section and plan to ensure composite and domain data has been honoured.

Block Model Interpolation Methodology

The general approach to model interpolation was to carry out a sequential series of Ordinary Kriging interpolation runs separately for each mineralised domain, with specific parameters selected for each particular domain orientation based on the localised domain statistics and variography.

For each of the Citronen Deposit areas it was possible to assign specific 'nugget' and 'sill' and search ellipsoid parameters for the Zinc, Lead and Iron items and for each mineralisation domain separately.

Block Model Interpolation 'outlier' high grade cut-off's

The higher grade (high Zn concentration) domains were restricted according to the probability statistics observed within each mineralisation domain. Generally the 'grade / cut-off - distance restriction' regime was applied at the 98th or 99th percentile level. The approach entails 'tightly' restricting the influence of some of the high grade 'outliers' but not actually cutting the composite value back to some arbitrary level. The 'grade/ cut-off - distance restriction' methodology thus chosen is considered to be superior for 'outlier' treatment, firstly because it does not artificially 'cut' high grade values to some arbitrary lower value, and secondly because the distance of restriction used can be justified from a geostatistical and spatial relationship study standpoint following appropriate semi-variogram analysis.



Block Model Validation

Once modelling estimation runs were completed, and the model was coded appropriately the modelled results were reviewed visually and the estimation run files checked to make sure estimations had been carried out correctly.

Specifically the validation process carried out examined the block model by:

Visual checking of interpolation block model results in plan and section;

Comparison of input versus output statistics globally;

- Review of localized mineralization domains by de-cluster analysis;
- Reviewing of 'Quality of Estimate' data and associated confidence coding analysis - (Block Model QLTY Item).

Resource Classification

The available DIST1 and COMP1 and KERR1 items were analysed from a probability statistics standpoint and a selection of limit levels were incorporated into a series of calculations to determine values for a new item called CONF which in turn was re-condensed into a final 'reporting item' called QLTY. Table 6 summarises the assessment criteria used for model blocks in the three main project deposit areas.

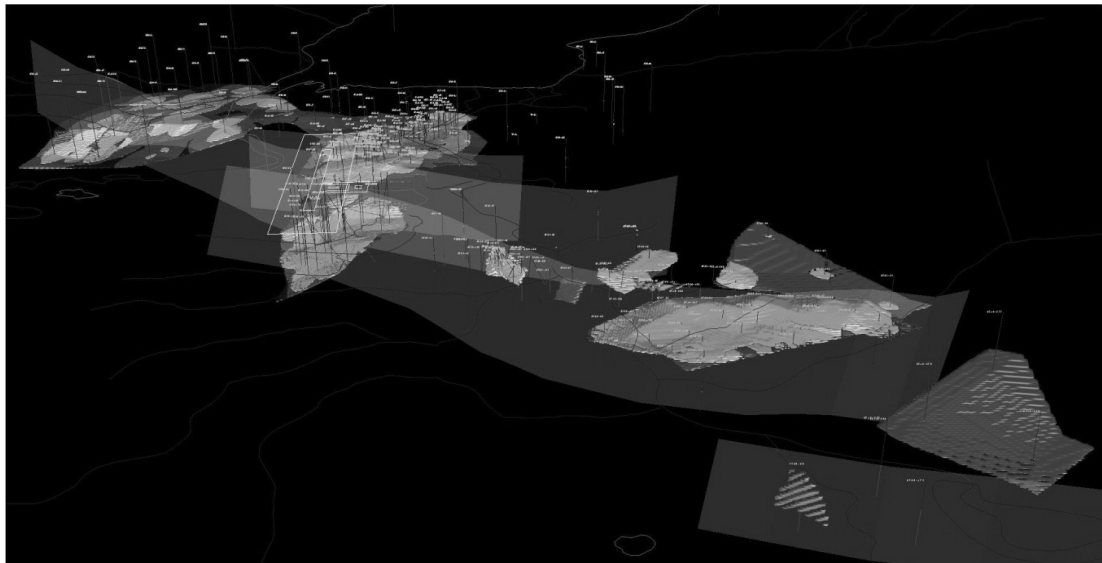
Table 6 Citronen Areas - QLTY item Classification Code Calculation Parameters				
Distance (DIST1) to nearest Composite (m)	Number of Composites used Range (COMP1)	Kriging 'Error' (KERR1)	ORE Domain (ZONE)	~QLTY
0-150	>20	0.0-1.0	ZON1=1-24	1
150-200	15-20	1.0-2.0	ZON1=1-24	2
200-300	<14	>2.0	ZON1=1-24	3
>300	NA	NA	ZON1=124	4

The final quality parameter (QLTY) was used for tabulating the 'un-biased' relative resource tonnages and grades for the block models in the Citronen Zinc Project areas. Ravensgate elected to include the "QLTY-4" or "Low Q" Inferred material as Inferred material as per the guidelines of the JORC Code. This is considered appropriate as this material, whilst not always well informed by drill-holes in the local vicinity, is clearly constrained within the existing 3-D wire-frames and therefore it is reasonable to expect that in these locations that the some portion of significant and elevated grades will be encountered when future planned "in-fill" drilling is carried out.

A graphical representation of the resource categories is shown in Figure 10 below.



Figure 10 Citronen Zinc Project Areas - Graphical Distribution of the 4 Resource 'QLTY' Zones



QLTY=1 - Green. QLTY=2 - Orange. QLTY=3 - Purple. QLTY=4 - Dark Blue. - (View Direction = Azim=350, Dip=-25 degrees).

Resource Estimate Reporting

The Citronen Zn Project resources have now been estimated using all the available Zn, Pb and Fe analyses. All of the material referred to is defined and constrained within the 3-D ore zone mineralisation domain shells defined for the Beach, Discovery and Esrum mineralization zones. Global resource summaries for the new Citronen block model are presented in Table 7 and Table 8. The new resource estimate has slightly lower tonnages and grades when compared to the previous 2008 estimates at any given reporting lower cut-off for zinc. The difference in tonnage reflects the new drilling data and was observed on average, when considered inside the mineralization shells, to be of slightly lower grade than the data-set used to report the previous 2008 estimate.

This estimate and reporting of identified mineral resources has been undertaken in accordance with the mineral resource reporting guidelines as outlined in The Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves - (JORC) - (December 2004).

The JORC Code outlines a range of assessment criteria dependent on the quality of several important data inputs. The most important of these inputs are related to factors that include amongst others, the following:

- Adequate levels of drilling and sample density;
- Precise drilling and sampling technique;
- Regular checking of assay data quality;
- Adequate survey control for drill-holes and sample points;
- Reliable estimation and allowance for variability of specific gravity;
- Consistent and accurate logging of drill-hole data;
- Precise definition and modelling of ore zones with reference to geology;
- Thorough reviews of deposit statistics;
- Realistic application of grade cut-offs and area of influence restrictions;
- Correct application of interpolation techniques;



- Thorough analysis of all modelling parameters and the results derived; and
- The minimisation of all assumptions where possible.

Any assumptions made relating to the scope of this work were clearly identified and reported wherever possible.

Table 7 Current Resource Summary - Citronen Deposit Areas at Varying Zinc Lower Cut-Off Grades (OK Block Model) - All Material reported within 2%Zn Mineralisation shells

Lower Cut-off (Zn%)	Measured			Indicated			Inferred		
	Tonnes	Zn(%)	Pb(%)	Tonnes	Zn(%)	Pb(%)	Tonnes	Zn(%)	Pb(%)
1.00% Zn	37716088	3.515	0.447	60574747	3.420	0.457	60705472	2.965	0.375
2.00% Zn	33227476	3.773	0.474	52221698	3.692	0.482	47199591	3.339	0.402
3.00% Zn	21841899	4.433	0.525	32709348	4.412	0.501	25908100	4.033	0.447
4.00% Zn	11218606	5.334	0.574	17140407	5.289	0.521	11185757	4.764	0.489

Table 8 Current Resource Summary - Citronen Deposit Areas at Varying Zinc Lower Cut-Off Grades (OK Block Model) - All Material reported within 3.5%Zn Mineralisation shells

Lower Cut-off (Zn%)	Measured		Indicated		Inferred	
	Tonnes	Zn(%)	Tonnes	Zn(%)	Tonnes	Zn(%)
1.00% Zn	22293066	4.251	30836706	4.297	27057759	3.629
2.00% Zn	20719666	4.457	29407217	4.426	23395403	3.937
3.00% Zn	18241563	4.715	25020777	4.745	18241668	4.310
4.00% Zn	11892411	5.354	16243724	5.406	11818766	4.739

* Note resources reported within the 'high-grade' 3.5% Zn shells are 'internal' to the larger 'low-grade' 2.0% Zn shells. The resources shown in table 8 are therefore not to be viewed as additional to those reported in table 7.



Resource Modelling ‘Risk Assessment’ and Associated Resource Estimation Considerations.

Table 9 is a summary table of the relative ‘risk assessment’ criteria of various aspects related to the Citronen Zinc Project. Specifically, this is an internal and ‘informal’ approach that Ravensgate uses to generate a descriptive risk assessment summary and is not necessarily intended to comply with any other formal national or international risk assessment systems or standards.

Table 9 Resources Estimation Risk Review - Citronen Project	
Database integrity	<ul style="list-style-type: none"> ➤ Ironbark has employed a previously established and tested system for the collection of validation of all data. Where necessary Ironbark has identified some minor instances where the exclusion of unreliable data is necessary. ➤ Ironbark personnel acknowledge that some data acquisition systems can still be improved upon and is undergoing steady continuous review and improvement. ➤ Ravensgate has been made aware (pers comm. D. Maclean and A. Byass) that most of the data available from drilling, sampling and assaying at Citronen has been subjected to appropriate ‘industry best practice’ QA/QC procedures. Where necessary any data not considered of appropriate ‘quality’ was not used to help define mineralisation domains and wire-frame envelopes or other modelling parameters. <p style="text-align: right;">LOW - MODERATE RISK</p>
Geological interpretation	<ul style="list-style-type: none"> ➤ Interpretation of the lithological boundaries model for the mineralisation interpretation used for the current resource modelling is currently supported by a significant amount of drill logging or surface mapping. However, small scale controls on mineralisation and localisation of higher grades may not be fully understood at this stage. Ongoing refined logging and where possible, future surface trench or geological pit mapping and analysis may enable tighter controls and therefore improved resource modelling as the resource development progresses. ➤ Interpretation of the lithological boundaries and the generation of a ‘rock mass’ and mineralogical models from available drilling is a considerably advanced level and continuing development of this remains a major project goal. Geological continuity is based upon a coherent and relatively predictable lithological model, and is steadily being refined or adjusted in continuing sectional and plan analyses. ➤ The lithological 3-D solid models ultimately developed for the Citronen Project uses all available data and is used to subsequently fill block model blocks for material coding and bulk density assignment as necessary for resource estimation. Further drilling and/or mapping is expected to refine the geological model in the future. <p style="text-align: right;">LOW - MODERATE RISK</p>



Table 9 Resources Estimation Risk Review - Citronen Project

Dimensions	<ul style="list-style-type: none"> ➤ The main zinc and lead zones are comprised of lithologically and structurally controlled zones of mineralisation. Drilling to date using relatively uniform patterns have generally taken into account the entire footprint of the main deposit area. The new resource model encompasses the entire extents of mineralization also and down to -440m RL ➤ The lithological and mineralogical understanding of each of the deposit areas extend generally from the -430→240m RL. ➤ There is some localised evidence of both regional and local structural 'offsets' fault or shear structures being evident but perhaps not reliably mapped at this stage. <p style="text-align: center;">LOW RISK</p>
Estimation and modelling techniques	<ul style="list-style-type: none"> ➤ The resource estimations for the Citronen Project Area were generated using standard 3D 'uniform block size' modelling techniques. Owing to the relatively low coefficients of variation observed for available sample composites for each domain area it is Ravensgate opinion that that the reliable Ordinary Kriging Interpolation technique should be employed. ➤ The uniform block sizes for the Citronen Project Area deposits is set at 10mE x 10mN x 2.0mRL elevation. An associated block proportion was also coded to all block with a precision of +/- 1% to accurately account for coded mineralization shell volumes. ➤ A rigorous re-review of the localised deposit geostatistics was carried out. Two separate sets of mineralised material type domains were defined using a nominal lower cut-off's of around 2.0% and 3.5% Zn. All mineralised domains were designated as separate zones according to local area and 'level'. This coding effectively 'constrained' the known mineralised domains based upon the existing drilling. Ongoing data collection may enable an effective refining and further geometric sub-domaining by additional lithological and / or structural knowledge if necessary. <p style="text-align: center;">LOW - MODERATE RISK</p>
	<ul style="list-style-type: none"> ➤ Semi-Variograms were generated for each mineralisation domain where possible for Zn. The 'normal variogram' calculation function was used and resulting variance plots were modelled using a 'spherical' model curve fitting to define the 'nugget', 'sill' and 'range' parameters specific to each domain. The variogram ranges have been compared with the search parameters applied by Ironbark to date. It is Ravensgate's opinion the parameters used by Ironbark have adequately described axial and planar control of mineralisation for each domain. These parameters may again need further study and refinement in the future to help optimize block model interpolation. <p style="text-align: center;">LOW RISK</p>
	<ul style="list-style-type: none"> ➤ Overall the resulting interpolated block models are considered to be relatively robust for most of the project areas because of relatively good drilling density and corresponding mineralisation distribution understanding. The relatively low variance nature of the nickel mineralisation throughout the



Table 9 Resources Estimation Risk Review - Citronen Project

	<p>deposit areas also allowed for reliable grade interpolation and resource estimation. It is important to note that further identification of any small scale structural controls will still be necessary prior to mining as these zones may be of some economic importance when used to refine ore reserves and mining schedules.</p> <p style="text-align: center;">LOW - MODERATE RISK</p>
Bulk Density	<p>➤ A large program of dry basis bulk density measurements has been carried out to confirm and up-date tonnage estimation and resource reporting parameters. A set of variable global bulk density measurements have been adopted and used for all modelling to-date which are adjusted by varying density of estimated quantities of Zn, Pb and Fe mineralization. Further refinement of the bulk density database will be required in the future.</p> <p style="text-align: center;">MODERATE RISK</p>
Reporting Lower Cut-off parameters	<p>➤ The choice of reporting resources at lower cut-offs should be viewed with respect to the JORC notion of transparency and reasonable expectations of future mining related lower cut-off levels. The lower cut-off levels are important with respect to overall resource estimate reporting. All mineral resources for the Citronen project have been reported at a range of appropriate lower cut-off's ranging from 1-4% Zn.</p> <p style="text-align: center;">LOW RISK</p>
Mining factors or assumptions	<p>➤ It is anticipated by Ironbark that the scale of mining equipment that may be ultimately selected, in relation to ore block dimensions as well as any blasting practices, may affect levels of dilution and aspects relating to ore loss. Such important considerations with respect to mining factors or assumptions relating to reserves estimation is yet to be considered in detail. These considerations are independent of estimated resources as described in this report.</p> <p>➤ For resource modelling, resource classification and reporting at the Citronen Project Area, no specific assumptions were made about mining methods, other than nominally considering the use of standardized surface and underground mining methods. The parameters around these future mining scenarios can reasonably be assumed given the type of terrain at the project areas and that these methods are commonly used for this type of mining in most modernized mining areas of the world.</p> <p style="text-align: center;">LOW RISK</p>
Metallurgical factors or assumptions.	<p>➤ Some information relating to Zinc and Lead recovery is already known from previous preliminary test-work. Similar test work is required to be carried out for each of the project areas. At this stage of the project no overall recoveries have been assumed for all the Citronen Project Area deposits.</p> <p>➤ For resource modelling no assumptions were made about process methods or Zinc or Lead recovery.</p> <p style="text-align: center;">LOW - MODERATE RISK</p>



Table 9 Resources Estimation Risk Review - Citronen Project

Classification	<ul style="list-style-type: none"> ➤ Reported resources comply with the JORC - (Dec 2004) code and have been compiled and reported according to the ASX Appendix 5A Listing Rules. ➤ The localised variations in drilling and sampling density were carefully considered and mineralisation domain shells were adjusted accordingly to reflect the underlying level of geological and mineralogical confidence. Only once the assumptions used in the data generation and compilation were eliminated or minimized, was the data used in these block model calculations. ➤ Classification of resources relies on the underlying sample and associated data quality used to build the respective resource block models. The actual classification methodology was carried out using an 'unbiased' allocation of material volumes based on ancillary block model parameters such as 'distance of block from nearest composite', 'number of composites' within any given interpolation search ellipsoid and also the estimated local 'kriging variance'. All of these parameters are 'condensed' for review as a 'quality of estimate' (QLTY) item used to base the final formal classification of resources as measured, indicated and inferred resources as necessary. ➤ The final reported block model resource tonnages and grades were checked with respect to the local domain geometry and domain statistical summaries. <p style="text-align: right;">LOW RISK</p>
Audits or reviews	<ul style="list-style-type: none"> ➤ Only limited Independent audit and review has been carried out for the Citronen Project, however internal review of Ravensgate's March 2008 modelling work and also the recent statistical review has been carried out. <p style="text-align: right;">LOW RISK</p>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> ➤ The Citronen Project Area continues to be deemed to have potential for economic merit and possible larger scale development. Further development work should be continued if possible in order to try to extend or increase the underlying resource base. It is now necessary to rigorously investigate mining and mineral extraction feasibility and thereby determine the operational economies of scale and expected Internal Rates of Return. <p style="text-align: right;">LOW RISK</p>



3.6.2 Citronen Fjord Project Potential

Ravensgate considers the Citronen Fjord project of merit and worthy of further exploration and studies. The extent of the system is yet to be fully tested and in particular the Esrum Zone is open to the north, south and west and the Beach Zone is open to the South. A new zone of mineralisation was also identified to the south of the Discovery Zone in 2010 which is open to the south and east.

A number of 'gravity high' geophysical anomalies have also been identified, many of which have had little drill testing. These gravity highs may be indicative of massive sulphide bodies at depth and require further drill testing to evaluate.

In 2010 Ironbark estimated an Exploration Target for Citronen of between 302 Mt and 347 Mt at combined 4.4% to 5.0% combined Pb+Zn grades (Ironbark, 2010). This was based primarily on extensions of reported known resources as well as geophysical targets.

Regionally there is potential to identify new mineralised systems within the project area. The Trolle Land Fault zone and Harder Fjord Faults, which appear to have been important in the localisation of mineralisation at Citronen, extend for many tens of kilometres and have had scant exploration carried out on them to-date.

3.7 Technical Project Review

3.7.1 Executive Summary

It is difficult to prepare a discounted cashflow analysis on the project as it does not have a defined reserve statement. In this case we have given our opinion on the reasonableness of the technical parameters, mining methodologies, operating and capital costs.

This review has highlighted that there is a significant level of work required to prepare a reserve statement which complies with JORC 2004 standards.

The proposed methods of mining are appropriate for the geometry and rock properties of the mineralisation defined.

The potential to mine the open pit towards the end of the underground operation will increase the head grade in early years but the overall development and production costs have the potential to also increase significantly for a stand-alone underground operation during these early years when compared to a combined open pit/underground operation.

Current work programs are evaluating the ability to adopt narrower working heights. This has the potential to increase both tonnes and grades. However, the cost associated with having more mining rooms, higher capital cost equipment and increased labour requirements will need to be assessed. It is difficult to quantify the net benefit and cost implications of this work at this stage.

ORElogy has attempted to bench mark the proposed operation against similar projects. The findings show that the proposed underground zinc operation is comparable to other mines in terms of \$/lb Zn produced and \$/t mined. As with other underground operations, Citronen would also be vulnerable when the price of zinc falls to \$1,540/t zinc, or below. This has occurred once since January 2009.

It is likely the project operating costs will increase in the order of 5.6% due to increased fuel and labour costs from the original 2010 estimate based on 2011 values.

The mine is projected to have a life in excess of 10 years based on current "ore inventories". This could be further extended by another 3 years if the confidence of the inferred material can be improved. At present, mineralisation is open to the north-west and will remain so until drilling closes this off. The results from the 2011 drilling season suggest that the ore body continues along strike and at depth and that the grades are comparable to existing intercepts.



3.7.2 Technical Review

Ravensgate has been asked to prepare an independent valuation of the assets associated with the Citronen Zinc project in Greenland which is owned by Ironbark Zinc Limited (Ironbark) on behalf of PricewaterhouseCoopers Securities (PwCS). ORElogy are assisting Ravensgate with the review of the mining and cost sections.

3.7.2.1 Scope of Review

The review of the Feasibility Study (FS) is to include the following:

- Prepare an opinion on the reasonableness of physical schedules, product mix, operating parameters, transport and shipping parameters, capital and operating cost assumptions underpinning financial models prepared by management.
- This will encompass life of mine plans and in particular, resources and reserves (including assumed conversion), production and recovery levels, operational items and risks, potential future developments, future capital expenditure and future operating costs including mining and transport costs.

At present, Ironbark have completed a Feasibility Study (FS) **which has not been publicly released** as there is still scope for improvement in terms of mining methods, production scheduling and cut-off grade optimisation. Hence, there are no reportable reserves at this time.

3.7.2.2 Data

The FS was largely completed by Wardrop Engineers who are a reputable engineering group based in North America.

The complete FS was submitted for review. However, the focus was mainly on the following sections:

- 1053320100-REP-R00XX-00 Volume 1 - Exec Summary DRAFT
- 1053320100-REP-R0012-03 Volume 3 - Mining FINAL
- 1053320100-REP-R0017-00 Volume 7 - PEP FINAL SIGNED
- 1053320100-REP-R0019-01 Volume 9 - Cap Cost Estimate FINAL
- 1053320100-REP-R0020-02 Volume 10 - Op Costs FINAL Signed with Appendices
- Appendix B Adjusted Reserves
- Volume 9 Appendix A & B Combined

Various websites were also used to gain information to help with benchmarking and operational comparison.

3.7.3 Feasibility Study - Review

The mining components of the FS are split into the following sections:

- Geotechnical
- Open pit
- Underground
- Mining equipment
- Personnel
- Development schedule
- Production schedule

In general, if there are no comments, then ORElogy concurs with the work and subsequent results from the FS.



3.7.3.1 *Geotechnical*

Nine geotechnical holes were drilled during the 2010 drilling season. Core from this program has been used for both non-destructive and destructive testwork. Rock mass rating (RMR) and rock quality designation (RQD) were utilised as part of the analysis. Generally speaking the rock performed well and provided good or very good RMR ratings.

ORElogy has the following comments:

- There appears to have been no in-situ stress measurements made other than from observed open bore holes. The magnitude and orientation of the in-situ stress will have a major bearing on the planning and design of underground openings.
- There appears to be no shear strength testing on the white calcite carboniferous discontinuities. Given this is above the Level II ore zone, this will require special attention to maintain back stability.
- Hydrogeology - has little effect on underground operations as most of the holes are dry. It is a permafrost environment, so water issues should be minimised.
- Use of iced backfill in mined stopes is the preferred method of tailings disposal. The anticipated mix is 55% solids and 45% water. A number of tests were undertaken to the time to freeze is dependent on room size. Physical tests as well as numerical analysis were undertaken. The results showed that unconfined compressive strength increased with reduced temperatures. However, the time to freeze is dependent on room size and could be as long as 200 days for the larger room size of 14m high by 10m wide by 150m long. Eventually, the iced backfill should provide enough strength to support the backs during pillar recovery operations. Adding "heat" to the system (i.e. adding back tailings at a temperature of 2°C) has been included, but the cumulative effect needs to be modelled.
- Primary support mechanisms for declines and lateral development are based on friction anchors and cable grouting. As these are for long term or permanent support, consideration should be given to include mesh as well.
- It is assumed that ongoing mapping in both open pit and underground environments will continue during operations.

3.7.3.2 *Open Pit*

Standard pit optimisation and mine design techniques have been used to determine the overall size of the open pit, its configuration and mining sequence.

At present, the only part of the resource that will be mined by open pit is the Discovery deposit. Total tonnage available at a 2% Zn cut-off grade is 23.1Mt at 2.57% Zn and 0.4% Pb. Of this amount, approximately one third is inferred ore. It also appears that the inferred ore has been used as an input to the optimisation process.

The maximum discounted worst case scenario resulted in an open pit with the potential to produce 9.1Mt at 3.0% Zn and 0.5% Pb with a strip ratio of 1.7:1. Generally, with an open pit where the mine life is greater than five years, an average of the best and worst cashflows could be used for shell selection. In doing so, this would result in a larger shell of 9.7Mt and a slightly higher strip ratio of 1.8:1. If the strategy is to maximise the value, extend mine life and maximise the resource, then the ore inventory could be extended to approximately 12Mt where the value is still within 95% of the maximum average value (i.e. another two years beyond the shell chosen).

Staged mine designs were completed but the basis of the design is unknown as:

- The designs are not based on the shells as described in the BFS as they do not include any inferred ore and secondly;
- The grades report back to an inverse distance (ID2) estimate rather than the ordinary kriged estimate which are used as part of the optimisation process. In fact, what is



reported are diluted ID2 grades with no reconciliation as to how the dilution has been calculated.

- There is no reconciliation back to the optimisation process.

ORElogy has the following comments:

- It is not clear on how the open pit mine design was completed using the results from the pit optimisation process.. There appears to be no pit optimisation based on measured and indicated ore only which can be used for mine design and reserve generation purposes.
- There is little in the way of sensitivity studies with regard to the main optimisation parameters including price, slope and costs. There have been a number of other underground versus open pit trade-off studies.
- Of significance is the trade-off study on the Beach zone. This showed a comparable value to the underground operation. It is difficult to evaluate this option as there is no tonnage/grade information available. However, there would be the possibility to develop a higher grade scenario and account for the other concerns raised in the BFS. By developing the Beach as an open pit presents other opportunities such as being able to process ore at similar grade to the underground operation, lower costs and better resource utilisation. Waste rock can also be used for construction materials as well.
- There are no cut-off grade calculations and no reserve classification statements which comply to Joint Ore Reserve Committee 2004 (JORC 2004) Guidelines.

3.7.3.3 Underground

Mine resources used in the build-up and design of the development and production strategies include inferred ore.

Mining methods selected for mining operations are based on room and pillar and long-hole open stoping. The selection of the mining method will be dictated by stope height. At present a minimum mining height has been established at 4m high. The resource is bound by structural rationale including the floors and backs of the mineralised zones as well as a nominal minimum cut-off grade of 2% Zn. Once this was applied, the defined mineralised envelopes were modified by a detailed value calculation which divided the areas into high value areas as well as areas which yield little value. This value calculation is complex and is not particularly transparent in its nature.

Dilution envelopes have been set at 0.15m into the surrounding backs and floors which given the dimensions of the openings is not very significant. However, given the sedimentary nature, the ore should “peel” cleanly from the backs.

Pillar recovery is maintained between 82% to 89% which is average, given the employed mining techniques.

Mining targets the higher grade ore first where the potential grades range from 5.4% Zn & 0.5% Pb from Beach Level 2, to 4.2% Zn & 0.45% Pb for Beach Level 3 and increasing slightly for Esrum Level 3 to 4.5% Zn & 0.4% Pb. Lead grades follow a similar profile.

Underground mine production is scheduled to commence at a rate of 1.5 Mtpa from Year 1, increasing to 3.0 Mtpa after the open pit is completed. Mining will commence from the higher grade sections of Beach Level 2 and will progress through to Beach Level 3 and then onto Esrum.

The main decline has been sized on large haulage (i.e. 60 tonne) equipment being utilised. A second means of egress will utilise the ventilation raises in each of the main mining zones.

Primary ventilation will use exhaust fans mounted on the ventilation raises and have been sized to deal with the expected diesel operating equipment. The system has been designed using VENTSIM and has the capability of adjusting the air flows & performance



during the life of the operation to suit the needs of the underground operation as it evolves.

ORElogy has the following comments:

- It is not clear whether the mine plan is based on using all ore including inferred ore. There is some difficulty in reconciling the mined ore tonnage and how it has been derived and how the dilution calculations have been applied as show in Table 10. At present the total measured and indicated ore as part of the underground mineable tonnage & grade is 28.4 Mt, whereas the ore scheduled is 29.1 Mt. There is no breakdown by area. The opportunity exists to increase the life of the operation by three to four years by increasing the level of confidence of the inferred ore. However, this work will probably be more cost effective by doing this from underground, rather than by surface drilling. At present, the “ore inventory” appears to support an operation of plus 10 years based on current production levels.

Table 10 Resource & Ore Inventory Statement (cut-off grades are not stated)

Resource Category	Beach Level 2			Beach Level 3			Esrum Level 3			Total		
	kt	Zn%	Pb%	kt	Zn%	Pb%	kt	Zn%	Pb%	kt	Zn%	Pb%
Measured	8,126	5.71	0.62	3,684	4.71	0.46				11,810	5.40	0.57
Indicated	10,371	5.80	0.76	440	4.41	0.26	10,898	4.95	0.41	21,709	5.35	0.57
Inferred	974	5.01	0.42	2,198	3.19	0.28	11,497	4.73	0.37	14,669	4.52	0.36
Total	19,471	5.72	0.68	6,322	4.16	0.38	22,395	4.84	0.39	48,188	5.11	0.51

Resource Category	Beach Level 2			Beach Level 3			Esrum Level 3			Total		
	kt	Zn%	Pb%	kt	Zn%	Pb%	kt	Zn%	Pb%	kt	Zn%	Pb%
Measured	6,962	5.31	0.61	2,907	4.26	0.45				9,869	5.00	0.56
Indicated	8,793	5.52	0.49	366	4.19	0.37	9,338	4.65	0.41	18,497	5.05	0.45
Inferred	875	4.70	0.40	1,827	4.21	0.34	9,796	4.31	0.35	12,498	4.32	0.35
Total	16,630	5.39	0.54	5,100	4.24	0.40	19,134	4.48	0.38	40,864	4.82	0.45
Tonnes Scheduled										29,072	5.02	0.48

Note: All tonne values are in Kilo-tonnes

- Ore haulage using a conveyor based approach may provide:
 - A more cost effective approach as compared to truck haulage;
 - Reduce ventilation requirements;
 - Less personnel underground;
 - If the orebody continues to extend to depth and to the northwest (based on current drilling results), then the benefits may improve when compared to truck based haulage systems;
 - It does have the disadvantage of being less flexible and the initial capital costs may be higher than the haulage based approach. A trade off study needs to be established to determine the most appropriate haulage method.
- There appears to have been little in the way of stope optimisation, other than modelling the overall value. Additional work has recently commenced on reducing the stope heights and developing higher grade stopes. At present, the geological model has been based on 2m composites, which was used to help build and estimate grades into a constrained wireframe. This is being modified currently by building a new model with a smaller block height and using 1m composites to gain more detailed information through each of the mineralised zones. The objective here is to try and increase the grade of the ore earlier in the schedule.



- Using this new approach, shape optimisation within the mineralised zones has highlighted that a minimum mining height of 2m versus 4m can improve both ore tonnage and grade. This is because the ore at the fringes can now be included as it meets the minimum height requirements of 2m high. The grade also improves as lower grade ore is now left in the backs or the floors. This approach uses minimum Zn cut-off grades to help determine the optimum shape and a number of minimum cut-off grades were evaluated. For each case, ore tonnage, grades and resulting contained metal increased by up to 10.7% depending on the cut-off grade used. This work is ongoing and the following conclusions can be made:
 - Further work is required to determine whether or not a 2m high mining height model is the most appropriate method. The impacts on production schedules, dilution, mining recovery and pillar recovery have yet to be analysed in detail.
 - However, working at this lower height will increase capital costs as the mining equipment become more specialised.
 - The lower mining heights will mean that:
 - Backfill can commence sooner;
 - Freezing of the backfill will be quicker due to the lower backfill volumes;
 - Pillar recover can commence sooner;
 - Dilution grades will be higher as the floor and back diluent grades will generally be lower grade ore (as opposed to waste);
 - Dilution percentages may increase as the clean break that exists between the sulphides and the backs is no longer applicable;
 - The support and equipment needs will have to be addressed if this is to be progressed as a viable option;
 - As equipment requirements will increase to maintain the same production rates, ventilation and personnel requirements will then increase. Given that labour is one of the significant cost drivers, the number of personnel working underground should be minimised and thought should be given to using mining equipment that can be remotely operated (if at all possible).
 - The number of working faces will also increase significantly and this will be exacerbated at the higher production rate of 3 Mtpa (as compared to the initial mining rate of 1.5 Mtpa).
 - An alternative may be to build a process plant at a 1.5 Mtpa capacity and delay the expansion (and capital) until the open pit operation commences. A 3.0 Mtpa underground operation mining 2.0m high stopes is a substantial operation and would need to be analysed in detail and compared back to the economics of building a 1.5 Mtpa operation.
 - The impact on ore reserve losses needs to be analysed in detail. There may be the potential to bench out the residual backs and floors if the grades support such an approach. However, this approach whilst maximising resource utilisation may have an impact on pillar recovery and or other production scheduling requirements.

There is obviously a significant level of work required before proceeding with a final mine plan, layout, production strategy and hence a final reserve estimate.

3.7.3.4 Mining Equipment

ORElogy notes the following regarding the equipment selection for the open pit:

- Fleet productivities are in excess of 8 Mtpa. The open pit tonnage is mined at a fraction of this rate, hence, this approach is conservative and given the location may even prove prudent. Hence there is either:



- The opportunity to go to single shift operations (less personnel, less productive hours with which to depreciate equipment against);
- Utilise a smaller fleet (lower capital and higher operating costs);
- Potentially sub-contract this component to a mining contractor.

ORElogy concurs with the underground equipment selection.

There may also be the opportunity to use continuous miners. A detailed analysis looking at rock strength, production rates etc would warrant further analysis.

As stated previously, there is the opportunity to reduce haulage costs by utilising conveyor based systems should be reviewed.

3.7.3.5 Personnel

Personnel requirements have been calculated from first principles and include allowances for:

- 6 week on 3 week off (9 week combined roster) - general labour force
- 3 week on 3 week off (6 week combined roster) - management
- 12 hour working shift
- Flights, accommodation & messing costs

Ironbark plan to recruit personnel from Eastern Europe and experienced personnel from North America. Either of these regions boasts experienced workforces that would be willing to work off-shore. The salaries and hourly rates appear low when compared to Australian operations, but are probably appropriate for this region. However recent trends in labour indices from Europe highlight that labour costs are increasing in the order of 2 - 3% annually. Unemployment is also decreasing (now 7.2%) in Canada which may put additional pressure on wages.

3.7.3.6 Development Schedule

The current plan is to develop both the open pit and underground operations such that by Year 1 of the project plan (years -2 and -1 are development periods), both the open pit and underground are producing ore at 1.5 Mtpa each to produce a total of 3.0 Mtpa of ore per year in total as shown in Figure 11.

In an effort to bring forward grade, open pit mining can be deferred until the end of the mine life and this has the effect of increasing grade in the early years as shown in Figure 12. The reader should be aware, that this is a conceptual production schedule based on inputs from the FS. It is an attempt to ascertain the difference in approaches and the impact on grades presenting to the mill over time.

Approaching the development strategy in this way may have the following effects:

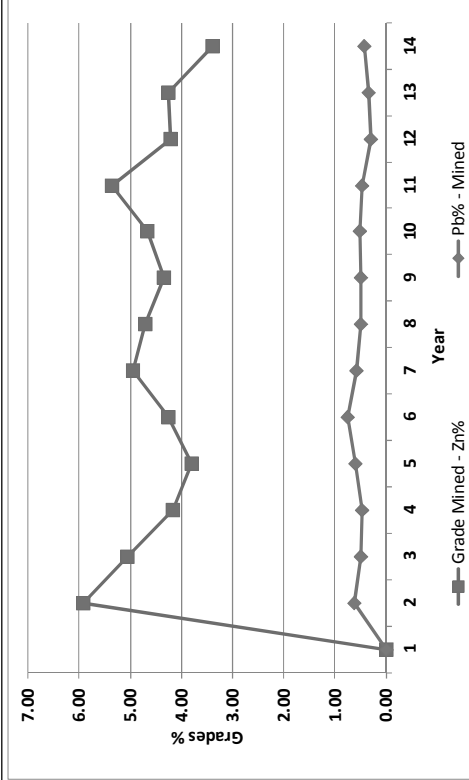
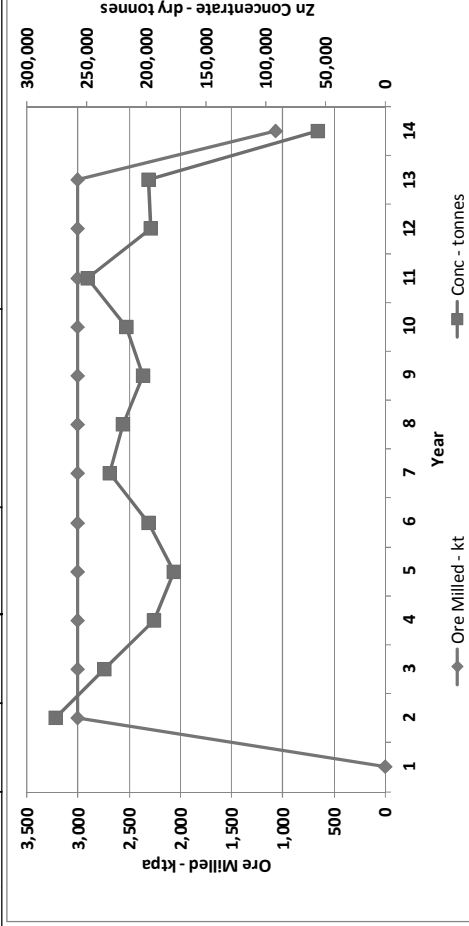
- Advantages
 - More focused development with only the underground and process plant being developed;
 - Potentially lower capital costs (i.e. open pit related costs);
 - Grade profile should increase dramatically as the lower grade open pit ore will be deferred.
- Disadvantages
 - Underground development costs will increase dramatically (in excess of the open pit costs);
 - Production costs will also increase as the number of rooms, equipment and personnel will need to increase to meet the desired production rate.

If the open pit is to be deferred until the end of underground operation, then a detailed ramp up strategy will need to be developed to determine the most appropriate development plan to meet the desired production rates to maximise value.



Figure 11 Current Mining Plan - Open Pit & Underground Operations commencing at the same time

Detail	Units	Total	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13
UG Ore	kt	29,072			1,500	1,500	1,500	1,500	1,500	2,506	3,000	3,000	3,000	3,000	3,000	3,000	1,067
	%	5.02			8.42	7.02	5.24	4.72	5.48	5.35	4.71	4.35	4.66	5.36	4.22	4.26	3.38
UG Waste	kt	556			25	24	27	28	30	77	59	85	35	35	54	77	
	%	0.48			0.55	0.47	0.40	0.61	0.95	0.55	0.49	0.49	0.51	0.46	0.30	0.35	0.42
OP Ore	kt	7,995			1,500	1,500	1,500	1,500	1,500	495							
	%	3.09			3.44	3.10	3.08	2.87	3.02	2.96							
OP Waste	kt	0.58			0.68	0.51	0.54	0.57	0.56	0.68							
	%	16,727	634		3,548	3,465	3,310	3,045	2,149	576							
Total Ore	kt	37,067			3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	1,067
	%	4.61			5.93	5.06	4.16	3.80	4.25	4.96	4.71	4.35	4.66	5.36	4.22	4.26	3.38
Waste	kt	0.51			0.62	0.49	0.47	0.59	0.76	0.57	0.49	0.49	0.51	0.46	0.30	0.35	0.42
	%	17,283	634		3,573	3,489	3,337	3,073	2,179	653	59	85	35	35	54	77	
Concentrate Production	t	2,646,571			275,725	235,384	193,463	176,533	197,620	230,627	219,166	202,252	216,542	249,350	196,066	197,976	55,867
	%	220,713			21,752	17,446	16,503	20,763	26,629	20,156	17,345	17,309	18,010	16,356	10,577	12,524	5,343
Concentrate Dry Tonnes	t	2,648,015			275,907	235,428	193,553	176,571	197,741	230,592	219,143	202,394	216,817	249,386	196,345	198,206	55,931
	%	260,990			25,719	20,492	19,655	24,674	31,574	23,897	20,492	20,492	21,328	19,237	12,546	14,637	6,247

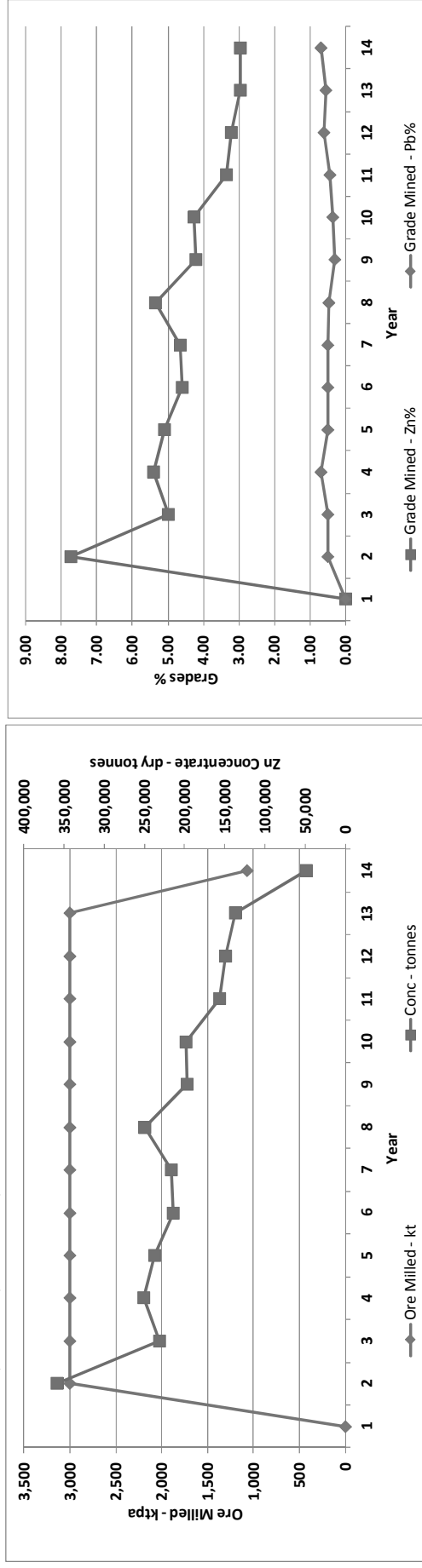


Note: Underground production data derived from FS Appendices and open pit from the FS report



Figure 12 Proposed Mining Plan -Underground Operations first, defer open pit until underground operations are complete

Detail	Units	Total	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13
UG Ore	kt	29,072			3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,072			
	Zn %	5.02			7.72	4.98	5.40	5.10	4.60	4.66	5.36	4.22	4.26	3.38			
	Pb %	0.48			0.51	0.51	0.70	0.49	0.49	0.51	0.46	0.30	0.35	0.42			
UG Waste	kt	556			25	24	27	28	30	77	59	85	35	35	54	77	
OP Ore	kt	7,995												928	3,000	3,000	1,067
	Zn %	3.09												3.30	3.20	2.95	2.96
	Pb %	0.58												0.50	0.60	0.56	0.68
OP Waste	kt	16,727												2,346	6,105	6,105	2,171
Total Ore	kt	37,067			3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	1,067
	Zn %	4.60			7.72	4.98	5.40	5.10	4.60	4.66	5.36	4.22	4.26	3.36	3.20	2.95	2.96
	Pb %	0.50			0.51	0.51	0.70	0.49	0.49	0.51	0.46	0.30	0.35	0.44	0.60	0.56	0.68
Waste	kt	17,283			25	24	27	28	30	77	59	85	35	2,381	6,159	6,182	2,171
Concentrate Dry Tonnes	Zn t	2,645,388			359,191	231,706	251,186	237,289	214,025	216,817	249,386	196,345	198,206	156,111	148,887	137,255	48,983
	Pb t	257,669			21,328	21,119	29,265	20,492	20,492	21,328	19,237	12,546	14,637	18,599	25,092	23,419	10,114



Note: Underground production data derived from FS Appendices and open pit from the FS report



3.7.3.7 Costs

Total open pit capital mining costs totalling \$24M (as outlined below) could be deferred until the end of the underground mine life.

- Pre-strip - \$2.8M
- Equipment Capital costs - \$13.9M
- Truck shop Capital Cost - \$7.3M (although a portion of this will be need to be kept for the underground maintenance fleet)

The open pit mining costs are considered appropriate for the size operation using the proposed equipment fleet.

The preliminary underground costs per tonne of ore mined at first appear to be low when compared to Australian operations as well as other similar styled operations in the northern hemisphere. However, whilst benchmarking against some of these other operations (which are based on actual hard costs) is difficult at best, it is an attempt to normalise costs on both a \$/tonne mined and processed as well as a \$/lb basis. Figure 14 and Figure 15 highlight where on these cost curves the proposed Citronen operation may lie.

The highlighted operations are based in the northern hemisphere and include North America and European underground zinc operations. In general, the costs in 2010 terms show that the Citronen Zinc operation is midway in terms of operating costs per tonne and towards to the upper costs per pound produced.

However, if the projected cost increases from 2010 to 2011 with the projected unit costs below then:

- Fuel - \$0.7/litre to \$1.1/litre
- Labour - 2.5% increase from 2010 to 2011.

These increases alone will add approximately 5.6% to the overall cost per tonne mined as outlined in Table 11.

These costs also highlight the vulnerability of the proposed operation if the price of zinc dips below \$1,540/t (or 70 c/lb). This has occurred once since January 2009 as highlighted in Figure 13.

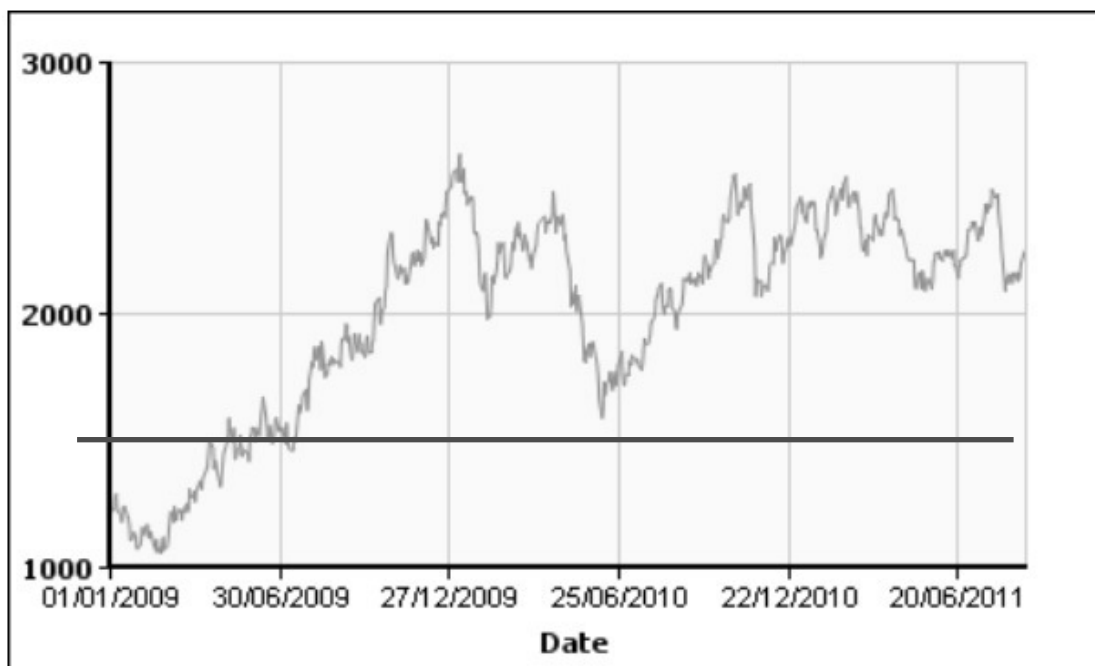


Table 11 Operating Costs - 2010 to 2011 projections¹

Description ²	Operating Cost by Area 2010	2010 to 2011 increase	Operating Cost by Area 2011
Underground Mining	\$657,953	5.2%	\$692,087
Open pit	\$68,550	4.0%	\$71,287
Process	\$344,818	0.5%	\$346,505
G&A	\$313,966	1.9%	\$320,054
Power	\$339,931	15.0%	\$390,921
Shipping	\$412,976	6.0%	\$437,914
Total	\$2,138,194		\$2,258,768
Cost per tonne of ore	\$57.68		\$60.94

- 1) These costs have been increased by reviewing each of the build-up of costs for each section and factoring each of the costs by the fuel and labour factor.
- 2) These costs have been derived from data included in the FS Appendices

Figure 13 Zinc Price



Source: London Metal Exchange 31st August 2011

Figure 14 Benchmarked costs per tonne

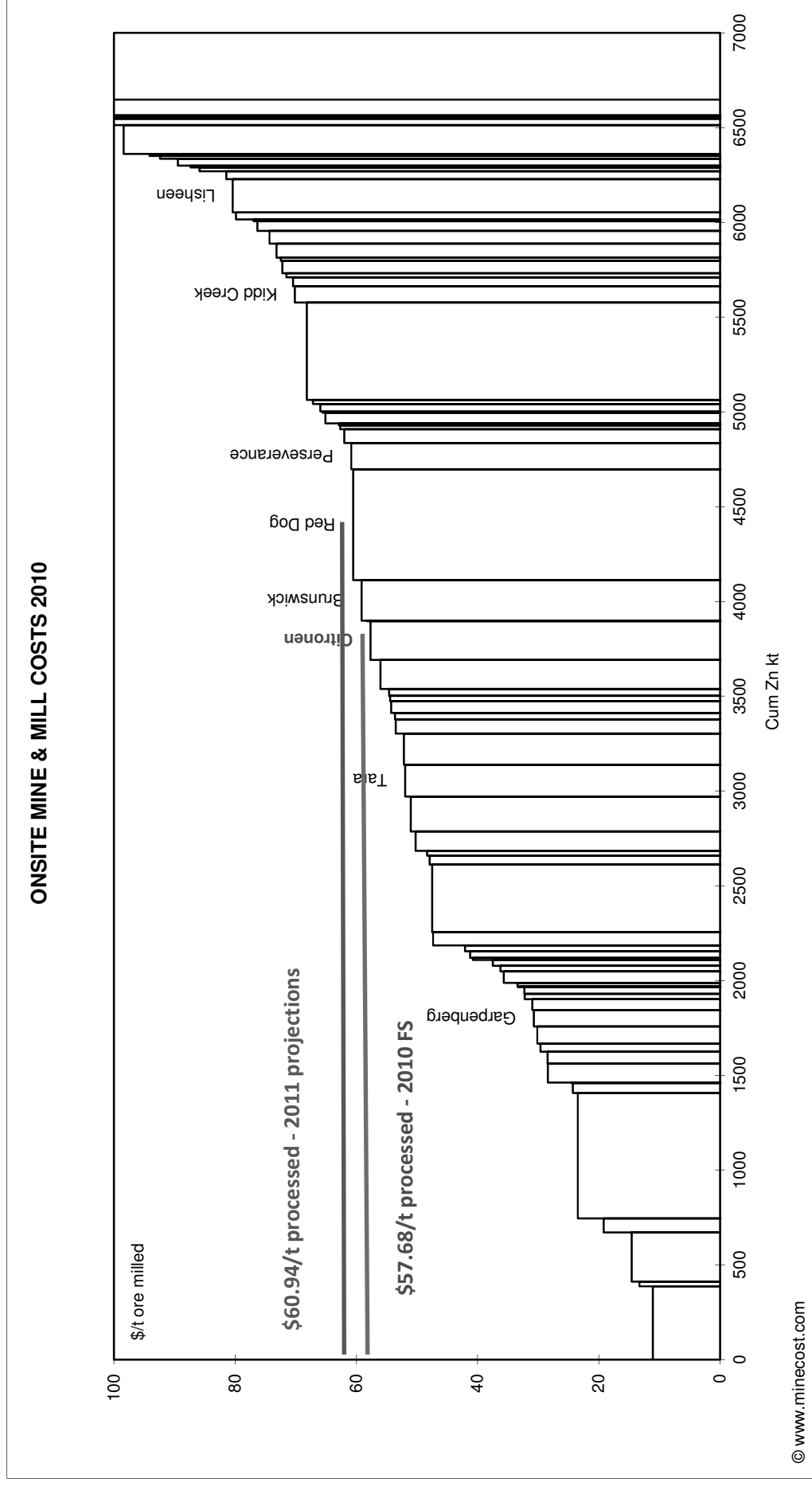
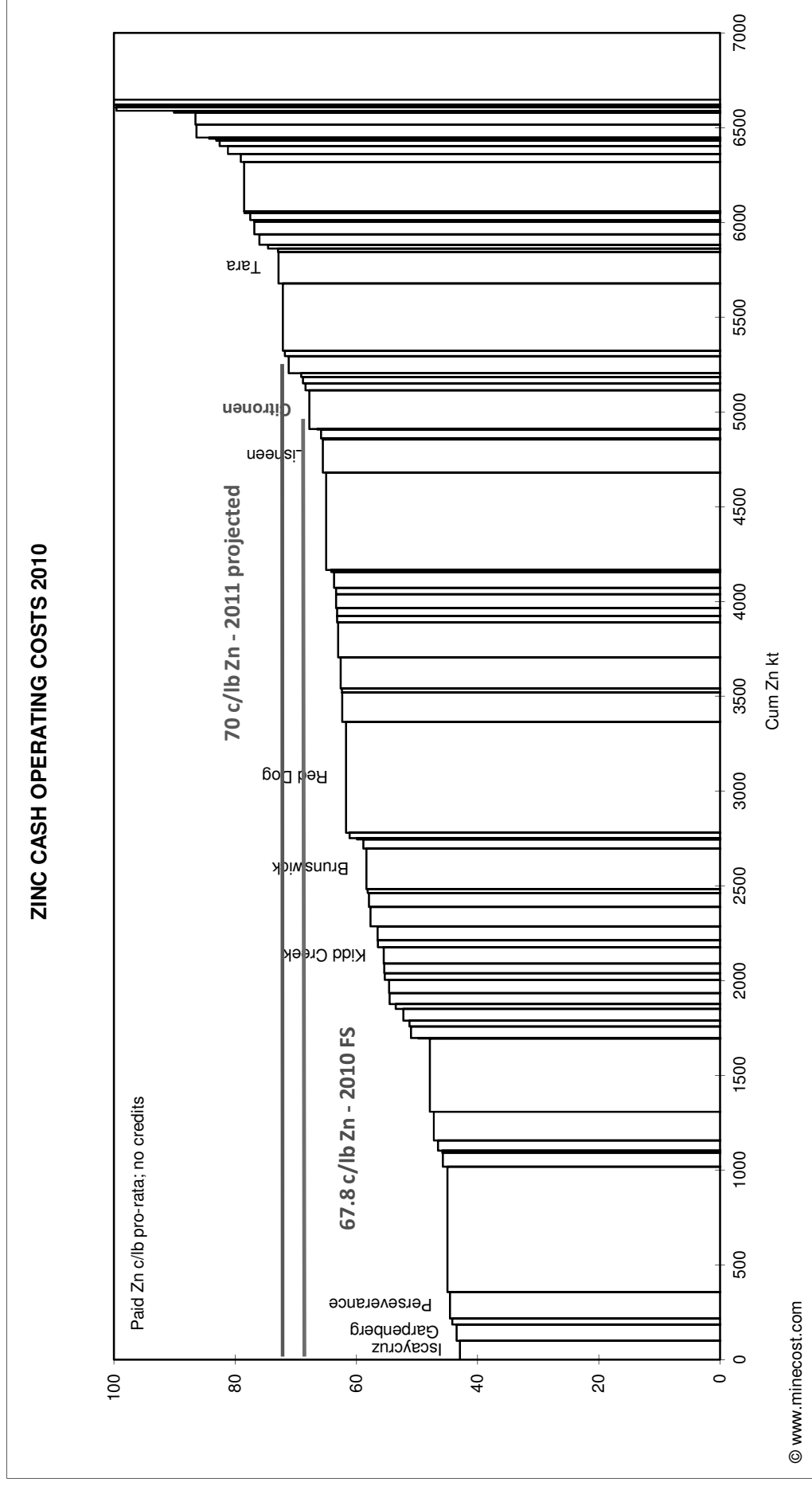


Figure 15 Benchmarked costs per tonne





3.7.4 Conclusions

This review has highlighted that there is a significant level of work required to prepare a reserve statement which complies with JORC 2004 standards.

The proposed methods of mining are appropriate for the geometry of the mineralisation and the potential to mine the open pit towards the end of the underground operation will increase the head grade but the overall development and production costs will also increase significantly for a stand-alone operation during these periods when compared to a combined open pit/underground operation.

Current work programs which are evaluating the ability to develop narrower working heights is underway and has the potential to increase both tonnes and grades. However, the cost associated with having more rooms, higher capital cost equipment and increased labour requirements will need to be assessed.

It is difficult to quantify the net benefit of this work at this stage.

ORElogy has attempted to bench mark the proposed operation against similar projects and it is comparable in terms of \$/lb Zn produced and \$/t mined.

Project operating costs have the potential to increase in the order of 5.6% due to increased fuel and labour costs from the original 2010 estimate to 2011 levels.

The project is projected to have a life in excess of 10 years based on current "ore inventories".

The results from the 2011 drilling season suggest that the mineralisation continues and the grades are comparable to existing intercepts. At present the mineralisation is open to the north-west and will remain so until drilling closes this off. It is anticipated that this drilling would be more economical and appropriate to be completed once underground operations have commenced.



4. MESTERSVIG ZINC-LEAD PROJECT, GREENLAND

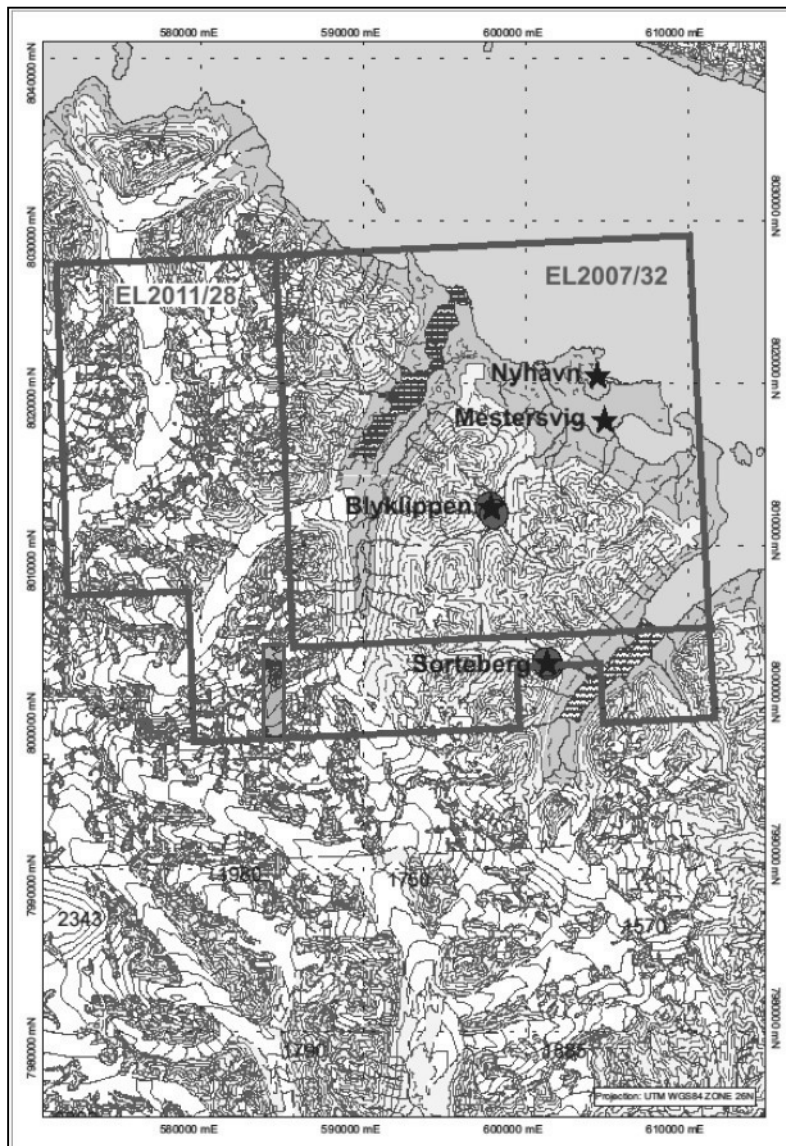
4.1 Introduction

The Mestersvig Project is located in Northeastern Greenland - Centred at: Latitude 72°11'N and Longitude 24°07'W on the south side of King Oscar Fjord. The project is centred on the historic Blyklippen Lead-Zinc Mine and surrounds the Danish Military airstrip at Mestersvig. The Blyklippen mine operated from 1956 to 1962 producing 544,600 tonnes at 9.3% Pb and 9.9% Zn.

4.2 Tenure and Physiography

The Mestersvig Project is comprised of two granted exploration licenses with a total area of 941km². Ironbark Zinc Limited owns and manages 100% of the project. A tenement schedule is presented in Table 22 below with a locality map of the tenements presented in Figure 16.

Figure 16 Ironbark Zinc Limited Tenement Location Plan - Mestersvig Project





4.3 Geology and Mineralisation

The Mestersvig area is considered part of a Devonian Graben system with subsequent faulting and gliding of the Caledonian Basement, covered by Caledonian and possibly Carboniferous Sediments. Accumulation to the East has produced a succession of troughs, in which partly marine, partly terrestrial sediments were accumulated during the younger Paleozoic and Mesozoic times.

Lead-Zinc mineralisation is epithermal in style with most mineralisation occurring along the Sortebjerg-Blyklippen vein zone and a 15km long discontinuous quartz vein system along the western border of the faulted graben. Mineralisation occurs as small lenses on the margins of the quartz veins and is comprised of barite, galena and sphalerite, with minor calcite, pyrite and chalcopryite, and traces of tetrahedrite. Sphalerite and galena occur as massive, coarse-grained lenses up to 1m-size but the minerals are rarely found together. In some of the veins, there are indications of a vertical zonation involving upwards enrichments from quartz to barite and from copper through zinc to lead.

4.4 Exploration History

The previous exploration history in the Mestervig Base Metal Project area is summarised below in Table 12.

Table 12 Exploration History - Mestersvig Lead-Zinc Project Area		
Date	Company	Findings
1948	Lauge Koch Expeditions	Identified lead-zinc rich quartz veins in 1948 during a regional geological mapping expedition headed by Lauge Koch. This was followed up in 1949 leading to the identification of the Blyklippen and Sortebjerg veins. Further mapping and sampling was carried out throughout the project area from 1950-1951.
1952-1984	Nordisk Mineselskab A/S	Carried out more detailed investigations with the majority of the work focussed on the Blyklippen vein where three exploration adits were driven and 110 diamond holes drilled (5,000m). A small lead-zinc resource was identified which was thought too small to mine, however with the support of the Danish Government it was decided to mine the deposit and hope to identify additional resources for mining. A mine camp and airport was established along with an underground flotation plant and powerhouse facilities. Mining commenced in 1956 and continued until 1962 with a total production of 544,600 t at 9.3% Pb and 9.9% Zn. A small Pb-Zn resource was identified to the south at Sortebjerge (immediately to the south of the Mestersvig Project) however it was never mined. Exploration from 1960 was largely focussed on the Malmbjerg Molybdenum deposit 25km to the south and regional exploration elsewhere in the district.



4.5 Current Exploration 2010 - 2011

Ironbark have completed two exploration field seasons at Mestersvig. In 2010 a small reconnaissance mapping and sampling program was carried out and a more substantial exploration program was completed in 2011. Ironbark completed 3 diamond drill holes for 249m testing northern extensions of the Sortebjerg vein and three holes for 1,159m testing vein extensions below the historic Blyklippen Mine. All holes intercepted narrow widths of Pb-Zn mineralized quartz veining. Assay results are pending. Ironbark also completed reconnaissance mapping of other quartz veins however work was hindered by snow cover.

4.6 Project Potential

Ravensgate considers the Mestervig project of merit and worthy of further exploration and studies. The project is primarily prospective for small tonnage, high-grade massive sulphide lenses within and on the margins of epithermal quartz veining. Historic mapping has identified epithermal quartz veining over large areas. The sulphide lenses may be hidden and are relatively small so geophysical techniques such as EM would be of benefit to identify any potential conductive massive sulphide lenses below surface.



5. WASHINGTON LAND PROJECT, GREENLAND

5.1 Introduction

The project is located in the Northwest of Greenland Centred at: Latitude 80°17'N and Longitude 63°54'W and is centred on Cass Fjord (which can be accessed by boat during the summer months).

5.2 Tenure and Physiography

The project consists of one granted exploration licence 2007/33 with an area of 738km² and one licence which is in process of renewal (1681km²). Ironbark Zinc Limited owns and manages 100% of the project. A tenement schedule is presented in Table 22.

5.3 Geology and Mineralisation

The Washington Land Base Metal project lies within the Palaeozoic Franklinian Basin, a continental scale sedimentary basin, which extends some 2,500km westwards through Northern Greenland and into the Arctic Islands of Canada. Pb-Zn mineralisation has been identified within the project area at the Cass prospect which appears to be of similar age to the Polaris and Nanisivik historic mines located in Canada.

Mineralisation at the Cass Prospect occurs within a mineralised structure with an observed strike length of approximately four kilometres. This appears to be part of a major regional structure which can be traced for many 10's of kilometers. Mineralisation identified at the Cass Prospect is of Mississippi Valley Type (MVT) style of mineralisation.

5.4 Exploration History

The previous exploration history in the Washington Land Base Metal project area is summarised in Table 13.

<i>Table 13 Exploration History - Washington Land Base Metal Project Area</i>		
Date	Company	Findings
1999	JV between Platinova AS and Rio Tinto Mining	Carried out limited grab and composite rock chip sampling and completed one diamond drill hole targeting Mississippi Valley Type (MVT) mineralisation. The best results from the composite rock chip sampling returned are 25m @ 8.9% Zn, 11.1% Pb & 95g/t Ag and 25m @ 3.7% Zn, 7.0% Pb & 40g/t Ag. The diamond drill hole returned a best intercept of 1.2m @ 8.4% Zn, 0.04% Pb & 94g/t Ag.

5.5 Current Exploration History

Ironbark recently commenced exploration at the Washington Land Project (2011) and work was in progress at the time of this report. Ironbark have mobilized a ship with fuel and supplies to Cass Fjord and plan to complete a drilling program to follow up on the drilling completed by Platinova/Rio Tinto in 1999. A prospect scale mapping program is also in progress.

5.6 Project Potential

The Washington Land Base Metal Project can be classified as an 'Exploration Area' mineral asset where a Mineral Resource has not been identified or estimated. The project is at an early stage of exploration, with a few targets identified by geological mapping and rock chip sampling. The commodity item of interest for exploration is primarily base metal MVT mineralisation. The mineralisation is considered to be contemporaneous to that at the Polaris and Nanisivik historic mines located in Canada. Ravensgate considers the project is of merit and worthy of further exploration and studies.



6. BELARA BASE METAL-GOLD, NEW SOUTH WALES

6.1 Introduction

The Belara Base Metal-Gold Project is located in New South Wales, Australia 100km North Northwest of Orange and approximately 30km to the east of Wellington. The Belara mine is located on the northern side of exploration licence EL6576 approximately 5km west of Goolma, New South Wales. The Native Bee mine workings are 1.6km to the south of the Belara workings.

6.2 Tenure and Physiography

The project consists of two granted exploration licences EL6576 and EL6749 comprising a total area of 140.4km². The licences are 100% owned by Ironbark. In a farm-in agreement with Ironbark, Global Mineral Resources Limited (GMRL) through its wholly owned subsidiary, Somerset Minerals Pty Ltd, will earn the right to a 75% interest in both tenements. Tenement details are presented in Table 22.

6.3 Geology and Mineralisation

6.3.1 Regional Geology

The geology within the project area is comprised of intrusive and sedimentary rocks of the Chesleigh Formation, located at the northern end of the Hill End Trough which in turn is located within the Lachlan Fold Belt.

Sedimentation in this region of the Lachlan Geosyncline commenced in the Ordovician and consisted of widespread deposition of intermediate flow and pyroclastic rocks in a marine environment.

Regional compression from the east caused by plate underthrusting started in the Ordovician and continued into the Silurian uplift. This resulted in sedimentation in the Hill End Trough, a slowly subsiding 'pit' trough between the two geo-anticlines.

Sedimentation consisted of marine sediments derived from the erosion of the geo-anticline and intrusion of acid pyroclastics from the fissure boundary of the two structures.

During the Devonian, subsidence and sedimentation continued along the same lines. Much of the major copper mineralisation of the area is associated with the Upper Silurian-Lower Devonian sediments. The mineralisation is mainly of the 'Kuroko' type (bedded Zn, Cu and Pb ores often associated with barite deposits) volcanogenic sulphide deposits.

Regional deformation has produced a folded sequence striking north northwest-north throughout the project area. This is reflected in the slaty cleavage which has formed as an axial surface to the folds. Deformation was accompanied by regional metamorphism to greenschist facies.

6.3.2 Local Geology and Mineralisation

The Belara and Native Bee historical mines occur in a sequence of quartz-muscovite-albite phyllites and schists of Silurian age overlying dacitic volcanics near the top of the Chesleigh Formation.

Within the Phyllite Group there are two coarse-grained horizons which are useful markers. The mineralisation known to date occurs between these units which are described as follows:

- A coarse grained unit containing quartz phenocrysts outcrops 3m west of the contact with the eastern rocks. It is 1.5m thick with a centrally located 10cm phyllite horizon.
- The western marker is a 3m thick coarse grained quartz-feldspar rock with phenocrysts of both these minerals.

A gossan outcrops along the line of the Belara workings. It is a coarse boxwork of dark brown ironstone containing approximately 50% of red-brown, orange and yellow iron and copper oxides.



The Belara-Native Bee mineralisation occurs in a very linear striking sequence of rocks. No evidence of large scale folding was reported in the Belara mine area by previous exploration parties.

The Belara and Native Bee base metal deposits located within EL 6576, were discovered prior to 1875, and operated intermittently to 1907 during which time the Belara mine had yielded (with intermittent working) some 260t of metallic copper from 8,000t of ore. In 1908, the maximum vertical depth of the Belara workings was recorded as 60m, with drives on three levels. Lode widths varied from 0.5 to 3m. Reported average mining grades were as follows: 3%-5% Cu, 2.0-4.5g/t Au, and 2-3oz Ag. Mining did not produce Zn or Pb from the ores at the time although they were present in the deposit mineralisation.

Data obtained from drill core indicate that the Belara lode consists of massive and disseminated pyrrhotite-chalcopyrite mineralisation with an upper zone enriched in sphalerite and galena. The lode is conformable with the strong regional cleavage. However this cleavage is parallel to the sedimentary bedding in the argillite wherever this has been preserved.

The Native Bee base metal sulphide gold bearing lode occurs along strike to the south from the Belara lode in an identical stratigraphical position.

The Native Bee mine yielded approximately 25t of metallic copper from 500t of ore before production ceased in 1908. No further production is recorded for either of the two mines after 1908. It is understood from previous exploration programs that the Native Bee mineralisation and metal association is similar in type to that at Belara.

Mineralisation within the East Belara licence (EL6749) has been recorded at 20 registered occurrences. The most significant include:

- Hansell's Hill - gold
- G74 NW1 - copper
- G74 - copper
- Tallawang - magnetite
- Ben Buckley - copper, lead, zinc
- Cloughs Gully - gold
- Spire View - copper
- Tucklan - gold

6.4 Exploration History

The Belara Project has a long exploration history having been explored routinely from the late 1960s, with most work focused on the Belara and Native Bee historic mines and other historic workings in the project area.

6.5 Current Exploration History

2006-2009

Ironbark conducted a drilling campaign between October and December 2006. Drill holes were positioned and targeted to intersect previously identified mineralisation within the prospect areas. Two reverse circulation (RC) drill holes were completed at Native Bee and RC drill holes with diamond drill (DD) core tails were completed at Belara. Nine holes (B023 - B031) totalling 1,819.8m were drilled.

During the period 2007 to 2009 Ironbark conducted a data review resulting in the identification of three target areas namely Ben Buckley, G74 Prospect and Dead Horse Creek. Several visits to the area were made by Ironbark while they negotiated access to these areas.

During 2008 to 2009 Ironbark carried out the drilling of three RC holes with diamond tails at Belara (B032-34) for a total of 1,308.2m. Two of the holes intersected massive sulphides



2010

Ironbark undertook two soil surveys during 2010 using a hand-held Niton XRF spectrometer over the Dead Horse Creek magnetic anomaly and the Ben Buckley Prospect. At Dead Horse Creek, 14 lines (11.6km) were completed. A total of 1,236 readings were taken. The highest values returned were 0.019% Zn, 0.008% Pb and 0.009% Cu. The Ben Buckley Prospect survey was carried out over the old workings and ten line kilometres with a total of 1,058 readings were taken. The best results included 1.224% Zn, 21.503% Pb and 0.626% Cu.

6.6 Project Potential and Mineral Resource Estimate

The Belara Base Metal Project can be classified as an 'Advanced Exploration Area' mineral asset where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by some form of detailed geological sampling. A JORC compliant mineral resource has been estimated (Table 14), with all the material in the inferred category being of lower geological confidence. Ravensgate considers the project is of merit and worthy of further exploration and development studies. Ravensgate has reviewed information relating to construction of the block model estimate and the Mineral Resource classification carried out. Ravensgate is satisfied that on limited review the tabled tonnage and grade by resource category are reasonable for use for the purposes of this report.

6.6.1 Mineral Resource Estimate

In 2007, Ravensgate constructed a 3-D block model for the Belara Project with the aid of mine modelling software Datamine Studio Version 2.1.1444 and using the PROTOM routine.

Modelling of the Belara and Native Bee lodes by Ravensgate has confirmed that the drilling results of previous exploration companies as well as that of Ironbark provides sufficient confidence in the continuity of mineralisation to satisfy the requirements for an Inferred Resource.

The Mineral Resources for the Belara Project was classified as Inferred Mineral Resources in accordance with the Australian JORC Code (2004). The resources are summarised in Table 14.

Table 14 Belara Project Mineral Resource Statement, April 2007						
Belara and Native Bee deposits - reported at a lower cut-off of 2.0% Zn						
Deposit	Tonnes	Zn %	Pb %	Cu %	Ag g/t	Au g/t
Belara	2,287,765	3.85	1.08	0.41	41.07	0.25
Native Bee	257,284	2.90	1.30	0.35	26.63	-
Total	2,545,049	3.75	1.10	0.40	39.61	0.22

6.6.2 Belara Project Potential

The Belara Project has undergone significant exploration to date. The Belara deposit and a number of prospects including Native Bee, G74 Prospect and Dead Horse Creek are at different stages of assessment.

The Belara Deposit has an inferred resource, estimated in accordance with the JORC Code (2004), of 2.5 million tonnes at 3.75% zinc, 0.4% copper, 1.1% lead, 0.3g/t gold and 40g/t silver at a 2% Zn cut-off (Section 6.6.1). There is still potential to update the inferred resource with the drilling already undertaken as well as further deep drilling to test the vertical extent of the lode and drilling to test the strike of the deposit. Potential also exists between the Belara lode and the Native Bee lode as this area remains poorly understood.



The G74 Prospect returned a north-south copper anomaly which ranged from 500-700ppm Cu from auger sampling and additional mineralisation identified of 1.5m at 1.3% Cu from 213.5m depth in diamond hole G74-5. Overall, the prospect appears to have undergone limited exploration and warrants further review and work.

The Ben Buckley Prospect 2010 survey returned results including 1.224% Zn, 21.503% Pb and 0.626% Cu. The prospect warrants further exploration for base metals.



7. CAPTAINS FLAT, NEW SOUTH WALES

7.1 Introduction

The Captains Flat Project is situated 20km East Southeast of Canberra and extends southwards to 100km south of Canberra. The project contains the historic Lake George Mine which was worked from 1882-1899 and from 1937-1960 producing 406,000 tonnes of zinc, 243,000 tonnes of lead, 27,230 tonnes of copper, 7.4 Million ounces of silver and 220,000 ounces of gold from 4 million tonnes of ore.

7.2 Tenure and Physiography

The project consists of four tenements, see tenement schedule Table 22. Two of the tenements (EL6840 & EL6381) are part of a farm-in joint venture with Forge Resources Limited where Ironbark presently has a 25.5% interest. For the other two tenements (EL6925 & EL6990), Ironbark has a 100% interest.

7.3 Geology and Mineralisation

The Captains Flat Project lies within the Lachlan Fold Belt of New South Wales and is centred on an elongate belt of metavolcanics (Kohinoor Volcanics) and metasediments (Jerangle Metamorphic Complex) which range from Ordovician to Cambrian in age. The belt is surrounded by turbidite sequence rocks of the Admaninaby Group and granitoids of the extensive Bega Batholith (which is late Silurian to early Devonian in age. Mineralisation is polymetallic and predominantly of Volcanic Massive sulphide style (VMS) with minor epigenetic style gold mineralisation.

The project area contains a number of base metal and gold prospects and historic workings listed below:

- Jerangle - The Jerangle Prospect is located at the southern end of the project area and drilling over a strike length of 1.5 kilometres has returned drill intercepts assaying up to 5.25% copper.
- Lake George Mine - The high-grade Lake George Mine produced approximately 4Mt of ore at 10% zinc, 6% lead, 0.7% copper, 1.8 g/t gold and 55 g/t silver.
- Lake George Tailings. Approximately 2 million tonnes of tailings from the Lake George Mine remain. Aircore drilling by Ironbark in 2008 returned a number of significant results including 3 metres at 6.9% zinc, 1.8% lead, 0.3% copper, 1.0 g/t gold and 27 g/t silver from 12 metres and 3 metres at 5.3% zinc, 1.7% lead, 0.4% copper, 1.1 g/t gold and 25 g/t silver from 12 metres.
- Vanderbilt Hill - The Vanderbilt Hill prospect is located to the east of the Lake George Mine and drilling has returned results such as 3.9m @ 10% zinc, 5.3% lead.
- Hoskinstown Prospect - The Hoskinstown Prospect is a vein hosted gold, zinc, lead, copper and silver prospect. No workings are recorded and little exploration has been completed in the region.
- Woodlands Mine - The Woodlands Mine produced an unknown quantity of gold in 1903 and again in 1918-19. The gold is hosted in quartz veins in a shale/sandstone host rock. There are shafts and drives evident and a small open cut pit at the historic mine.
- Briars Mine - The Briars Mine was a copper and base metal mine that had its own smelter which operated circa 1921. An unknown amount of copper was produced from massive sulphides hosted in agglomerate, rhyodacite and shale.



7.4 Exploration History

The Captains Flat Project leases have undergone significant exploration by a number of explorers over the years since discovery of base metal mineralisation at Captains Flat in the late 1800's. Most work has been focused around the historic Captains Flat Mine where mining and exploration work was completed to a level of 600 metres below surface. Elsewhere in the project the various prospects have had varying level of exploration and drilling work completed by numerous companies.

7.5 Current Exploration History

Ironbark entered into a joint venture with Monaro Mining and later with Glencore International to explore the Captains Flat area in 2006. In 2007 Ironbark completed an exploration program testing the Lake George Mine tailings with a program of aircore drilling. A total of 154 holes were drilled (2,533m) with better results including 3 metres at 6.9% zinc, 1.8% lead, 0.3% copper, 1.0 g/t gold and 27 g/t silver from 12 metres and 3 metres at 5.3% zinc, 1.7% lead, 0.4% copper, 1.1 g/t gold and 25 g/t silver from 12 metres. Small drilling programs were also completed at Jerangle and Captains Flat.

In 2009 and 2010 Ironbark completed several geochemical soil surveys utilising a Niton XL3t hand held analyser. This program identified several geochemical targets of interest. Follow up drilling of these anomalies along with testing several other targets within the project area is planned for 2011.

7.6 Project Potential

The Captains Flat Project leases have undergone significant exploration as well as mining in the past and can be considered an "Advanced Exploration" asset. Although substantial drilling, mining and exploration has been undertaken in the past, potential remains for the discovery of new polymetallic VMS style mineralized systems and extensions to the known mineralised systems. Of note is that VMS deposits often occur in small clusters of deposits which enhances the prospectivity of the area. However volcanic terranes are often very geologically complex which means that substantial geological work, geophysics and drilling is required to properly evaluate the project area.



8. VALUATION

8.1 Introduction

There are a number of recognised methods used in valuing “mineral assets”. The most appropriate application of these various methods depends on several factors, including the level of maturity of the mineral asset, and the quantity and type of information available in relation to the asset. All monetary values included in this report are expressed in Australian dollars (A\$) unless otherwise stated.

The Valmin Code, which is binding upon “Experts” and “Specialists” involved in the valuation of mineral assets and mineral securities, classifies mineral assets in the following categories:

- Exploration Areas refer to properties where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified.
- Advanced Exploration Areas refer to properties where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by some form of detailed geological sampling. A JORC compliant mineral resource may or may not have been estimated but sufficient work will have been undertaken that provides a good understanding of mineralisation and that further work will elevate a prospect to the resource category. Ravensgate considers any identified Mineral Resources in this category would tend to be of relatively lower geological confidence.
- Pre-Development Projects are those where Mineral Resources have been identified and their extent estimated, but where a positive development decision has not been made. This includes projects at an early assessment stage, on care and maintenance or where a decision has been made not to proceed with immediate development.
- Development Projects refers to properties which have been committed to production, but which have not been commissioned or are not operating at design levels.
- Operating Mines are those mineral properties, which have been fully commissioned and are in production.

Various recognised valuation methods are designed to provide the most accurate estimate of the asset value in each of these categories of project maturity. In some instances, a particular mineral property or project may include assets that comprise one or more of these categories. When valuing Exploration Areas, and therefore by default where the potential is inherently more speculative than more advanced projects, the valuation is largely dependent on the informed, professional opinion of the valuer. There are a number of methods available to the valuer when appraising Exploration Areas.

The Multiple of Exploration Expenditure (“MEE”) method can be used to derive project value, when recent exploration expenditure is known or can be reasonably estimated. This method involves applying a premium or discount to the exploration expenditure or Expenditure Base (“EB”) through application of a Prospectivity Enhancement Multiplier (“PEM”). This factor directly relates to the success or failure of exploration completed to date, and to an assessment of the future potential of the asset. The method is based on the premise that a “grass roots” project commences with a nominal value that increases with positive exploration results from increasing exploration expenditure. Conversely, where exploration results are consistently negative, exploration expenditure will decrease along with the value. The following guidelines are presented on selection of the PEM:

- PEM = 1. Exploration activities and evaluation of mineralisation potential justifies continuing exploration.
- PEM = 2. Exploration activities and evaluation of mineralisation potential has identified encouraging drill intersections or anomalies, with targets of noteworthy interest generated.



- PEM = 3. Exploration activities and evaluation of mineralisation potential has identified significant grade intersections and mineralisation continuity.

Where transactions including sales and joint ventures relating to mineral assets that are comparable in terms of location, timing, mineralisation style and commodity, and where the terms of the sale are suitably “arms length” in accordance with the Valmin Code, such transactions may be used as a guide to, or a means of, valuation. This method is considered highly appropriate in a volatile financial environment where other “cost based” methods may tend to overstate value.

The Joint Venture Terms valuation method may be used to determine value where a Joint Venture Agreement has been negotiated at “arms length” between two parties. When calculating the value of an agreement that includes future expenditure, cash and/or shares payments, it is considered appropriate to discount expenditure or future payments by applying a discount rate to the mid-point of the term of the earn-in phase. Discount factors are also applied to each earn-in stage to reflect the degree of confidence that the full expenditure specified to completion of any stage will occur. The value assigned to the second and any subsequent earn-in stages always involves increased risk that each subsequent stage of the agreement will not be completed, from technical, economic and market factors. Therefore, when deriving a technical value using the Joint Venture Terms method, Ravensgate considers it appropriate to only value the first stage of an earn-in Joint Venture Agreement. Ravensgate have applied a discount rate of 10.0% per annum to reflect an average company’s cost of capital and the effect of inflation on required exploration spends over the timeframe required.

The total project value of the initial earn-in period can be estimated by assigning a 100% value, based on the deemed equity of the farminor, as follows:

$$V_{100} = \frac{100}{D} \left[CP + \left(CE * \frac{1}{(1 + I)^{\frac{t}{2}}} \right) + \left(EE * \frac{1}{(1 + I)^{\frac{t}{2}}} * P \right) \right]$$

where:

V_{100}	=	Value of 100% equity in the project (\$)
D	=	Deemed equity of the farminor (%)
CP	=	Cash equivalent of initial payments of cash and/or stock (\$)
CE	=	Cash equivalent of committed, but future, exploration expenditure and payments of cash and/or stock (\$)
EE	=	Uncommitted, notional exploration expenditure proposed in the agreement and/or uncommitted future cash payments (\$)
I	=	Discount rate (% per annum)
t	=	Term of the Stage (years)
P	=	Probability factor between 0 and 1, assigned by the valuer, and reflecting the likelihood that the Stage will proceed to completion.

Where mineral resources remain in the Inferred category, reflecting a lower level of technical confidence, the application of mining parameters using the more conventional DCF/NPV approach may be problematic or inappropriate and technical development studies may be at scoping study level. In these instances it is considered appropriate to use the ‘in-situ’ Resource method of valuation for these assets. This technique involves application of a heavily discounted valuation of the total in-situ metal or commodity contained within the resource. The level of discount applied will vary based on a range of factors including physiography and proximity to infrastructure or processing facilities. Typically and as a guideline, the discounted value is between 1% and 5% of the in-ground value of the metal in the Mineral Resource.

In the case of Pre-development, Development and Mining Projects, where Measured and Indicated Resources have been estimated and mining and processing considerations are known or can be reasonably determined, valuations can be derived with a reasonable degree of confidence by compiling a discounted cash flow (DCF) and determining the net present value (NPV).



The Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC code, 2004) sets out minimum standards, recommendations and guidelines. A Mineral Resource defines a mineral deposit with reasonable prospects of economic extraction. Mineral Resources are sub-divided into Inferred, Indicated and Measured to represent increasing geological confidence from known, estimated or interpreted specific geological evidence and knowledge. An Ore Reserve is the economically minable part of a Measured or Indicated Resource after appropriate studies. An Inferred Resource reflecting insufficient geological knowledge, cannot translate into an Ore Reserve. Measured Resources may become Proved (highest confidence) or Probable Reserves. Indicated Resources may only become Probable Reserves.

8.2 Previous Mineral Asset Valuations

Ravensgate is not aware, nor have we been made aware, of any valuations over the Greenland and Australian base metal projects. Exploration tenements have not been included in the valuation where tenure or permits have not been granted to the relevant company and the company does not therefore have any ownership over tenement mineral assets or any exploration value within the tenements.

8.3 Material Agreements

Ravensgate has been commissioned by Ironbark Zinc Limited (ASX code: IBG) and PricewaterhouseCoopers Securities Ltd (PwCS) to provide an Independent Technical Project Review and Valuation Report. The Technical Project Review and Valuation report encompasses the Citronen Pre-Development Project, Mestersvig Exploration Area Project, Washington Land Exploration Area Project, Belara Advanced Exploration Area Project and Captains Flat Exploration Area Project. The Technical Valuation report provides an assessment of the Greenland and Australian “Exploration Area”, “Advanced Exploration Area” and “Pre-development” minerals assets listed below which are owned 100% by Ironbark or in Joint Venture agreements. Brief details of the ownership and joint venture agreements can be listed as follows.

<u>Mineral Asset</u>	<u>Ironbark Ownership %</u>
• Citronen Fjord Project (Base Metals), Greenland	100%
• Mestersvig Project (Base Metals), Greenland	100%
• Washington Land (Base Metals), Greenland	100%
• Belara (Base Metals), NSW, Australia	100% (Diluting to 25%)
• Captains Flat (Base Metals), NSW, Australia	25.5% (Contributing to 37.5%)
• Captains Flat (Base Metals), NSW, Australia	100%

Belara Base Metal Project, NSW, Australia 100% (Diluting to 25%)

In May 2010 Somerset Minerals Pty Ltd (SMPL) a subsidiary of Global Mineral Resources Limited (GMRL) entered into a farm-in/joint venture with Ironbark with the right to earn 75% of the Belara tenements EL6576 and EL6749. SMPL must pay a \$5,000 deposit, reimburse up to \$50,000 of Ironbark’s expenditure and spend \$1,000,000 in expenditure over three years. Upon GMRL listing on the Australian Securities Exchange (ASX), they will issue Ironbark 2,000,000 shares at \$0.20 and 1,000,000 options at \$0.25 with an expiry of 30 June 2013. The reason this transaction is not listed in the comparable transactions (Section 8.4.1) is because GMRL has not listed on the Australian Securities Exchange at present.



Captains Flat Base Metal Project, NSW, Australia - 25.5% (Contributing to 37.5%)

In June 2010 Ironbark in association with New Base Metals Pty Ltd (NB MPL) a subsidiary of Glencore International AG entered a renegotiated farm-in/joint venture with Forge Resources Limited over the exploration licences EL6381 and EL6840. Ironbark and NB MPL have the right to earn a further 24% (37.5% Ironbark and 37.5% NB MPL with an exploration spend of \$600,000 on a 50:50 contribution basis over 2 years.

In the original farm-in/joint venture dated August 2006 Ironbark had the right to earn a 51% interest for an initial payment of \$50,000 and after meeting statutory expenditure for 2 years. Ironbark had the right to earn an additional 24% interest on completion of a positive feasibility study within the next 2 years. Because of the renegotiation and the original terms of the joint venture not being met it has not been included in the comparable transactions (Section 8.4.1).

Ravensgate understands all active exploration tenements are granted at this point in time and are in good standing. Ravensgate makes no other assessment or assertion as to the legal title of tenements and is not qualified to do so.

Ravensgate is not aware, nor have we been made aware, of any other agreements that have a material effect on the provisional valuations of the mineral assets, and on this basis have made no adjustments on this account.

8.4 Comparable Transactions

Ravensgate has completed a search for publicly available market transactions involving predominantly zinc + lead projects with lesser amounts of copper, silver and gold within Australia and Internationally. Transactions reflect comparable tenement holdings in geological provinces that are considered prospective for similar commodities, and that are of similar prospectivity to the minerals assets being valued. In Ravensgate's opinion, and with experience, it is understood that individual market transactions are rarely completely identical to the relevant project area or may not necessarily contain all the required information for compilation. In practice, a range of implied values on a dollar per metal unit or dollar per square kilometre of tenement holding will be defined as suitable for further use. The transactions identified along with the implied cash-equivalent values are summarised in Section 8.4.1 by commodity and region.

Ravensgate also completed a search in general for publically available market transactions involving mineral projects located in Greenland, though none of comparable relevance were found apart from the already recognised purchase of the Citronen project in March 2007.

Publically available market transactions have been separated to reflect transactions on a dollar per square kilometre of tenement holding or on a dollar per metal unit for a more advanced Exploration Target or Mineral Resource. This was undertaken to reflect the varying levels of geological exploration carried out within the various project tenements. In general terms, exploration projects may start with a relatively large tenement holding where a lack of detailed geological sampling and knowledge renders the use of the "in-situ" yardstick valuation method inappropriate (i.e. an "Exploration Area Mineral Asset"). For these particularly early-stage exploration areas comparable transactions on a dollar per square kilometre basis are more relevant. As the project advances and as geological sampling and knowledge increase, tenement areas tend to decrease to match a narrowing focus on more prospective areas. For these areas where specific, drill sample supported Exploration Targets have been identified that warrant further detailed evaluation or Mineral Resources require estimation, comparable transactions on a dollar per metal unit basis may be more appropriate (i.e. an "Advanced Exploration Area Mineral Asset or Pre-Development Project at early assessment").

To compare the transactions of the various projects where resources have been reported they have often been compared on a tonnes of contained Zinc equivalent (ZnEq) metal. The reason for using tonnes of contained ZnEq over tonnes of contained zinc is that most of the resources are polymetallic, which may include all or some of the following metals; lead, copper, silver or gold. The number of tonnes of contained ZnEq metal has been determined at the time of the announcement of the transaction for each resource, by determining the ratio of the metal price in relation to one tonne of Zinc metal, of the average price for each metal for the month that the transaction occurred in. Ravensgates opinion is that the reader should be aware that the



use a ZnEq metal is inherently difficult to use because of the often significant variations of zinc and lead prices at any given point in time in the metals market cycle. Prices of different metal commodities may move in similar directions or trends, however the converse is often the case.

8.4.1 Reported Market Transactions involving Zinc Projects within Australia and Overseas

Ravensgate's analysis of Australian and overseas market transactions for Zinc projects indicates an implied value between \$6.77 to \$836.77 per tonne of contained ZnEq metal for moderate confidence Mineral Resources through to operating mines (Table 15). Within the range of \$6.77 to \$836.77 transactions involving operating mines or mines under construction had a range of \$54.51 to \$836.77 per tonne of ZnEq metal, whereas undeveloped resources had a range of \$6.77 to \$32.76 per tonne of contained ZnEq metal. The transaction between Vedanta Plc and Anglo American Plc for the Black Mountain Mine and the Gamsberg Project in South Africa at an implied value of \$35.46 per tonne of contained ZnEq metal includes both an operating mine and a large undeveloped resource. Ravensgate considers that the price for this asset was lower due to the large undeveloped Gamsberg resource and that it was not for 100% of the asset, only 100% of Anglo American Plc's 74% part of the mine and the Gamsberg deposit.

The original purchase of Citronen in March 2007 by Ironbark Gold Limited the former name of Ironbark Zinc Limited was completed for \$18.69 per tonne of contained ZnEq metal.

Ravensgate's analysis of Australian market transactions for early-stage, conceptual Zinc-Lead base metal projects through to more advanced / strategic Zinc projects where a mineral resource has not been undertaken, indicates an implied value between \$545 to \$5,447 per square kilometre (Table 16). Most early-stage, conceptual zinc projects fall in the range of \$545 to \$1,408. Exploration costs are a lot higher in Greenland compared to other parts of the world due to its remoteness and rugged topography. Ravensgate has applied a 20% discount rate to the assets in Greenland to reflect the inherently riskier exploration due to the higher costs and therefore has applied an implied value range of \$436 to \$4,358 per square kilometre.



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Lennox Find, Pilbarra, Western Australia	March 2011: Laconia Resources Limited entered into an acquisition agreement with Jabiru Metals Limited (Jabiru) for 100% of Jabiru's 95% interest in the Lennox Find project for a share buy in of \$1.0M. The project is prospective for VHMS base and precious metal mineralisation. The project has an Inferred Resource of 0.85Mt @ <u>7.7% Zn, 1.8% Pb, 0.7% Cu and 115g/t Ag</u> for a contained 0.16Mt of ZnEq metal. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$1.05M (notional \$6.77 A\$/metal tonne on 100% terms).	0.85Mt	\$1.05M	\$6.77 / metal tonne
Myrtle, Northern Territory, Australia	March 2011: Teck Resources Limited entered into a farmin/JV agreement with Rox Resources Limited to earn 51% with an initial share placement of \$0.5M and \$5.0M cash spend over 4 years. The project is prospective for SEDEX zinc and lead mineralisation. The Myrtle Project contains an Indicated and Inferred Resource of 15.3Mt @ <u>5.45% Zn and 1.4% Pb</u> for a contained 1.07Mt of ZnEq metal. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$9.08M (notional \$8.46 A\$/metal tonne on 100% terms).	1.07Mt	\$9.08M	\$8.46 / metal tonne
Manbarram, Northern Territory, Australia	February 2011: Kimberley Metals Limited and Yuguang (Australia) Pty Ltd entered into a farmin/JV agreement with TNG Limited to earn 51% with a \$2.5M cash buy in and \$2.0M cash spend over 3 years. The project is prospective for Mississippi Valley Type (MVT) zinc, lead and silver mineralisation. The Manbarram Project contains total Indicated and Inferred resources of 33.9Mt @ <u>1.42% Zn, 0.38% Pb and 8.6g/t Ag</u> for a contained 0.74Mt of ZnEq metal. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$7.78M (notional \$10.54 A\$/metal t on 100% terms).	0.74Mt	\$7.78M	\$10.54 / metal tonne
Jabiru Projects, Australia	February 2011: Independence Group NL announced an off-market 100% takeover for Jabiru Metals Limited (Jabiru) at an implied price of \$0.961 per Jabiru share equivalent to \$532M. The Jabiru projects are prospective for VHMS base and precious metals. Jabiru has a number of resources and reserves and an operating mine (Jaguar). Jabiru has a total resource inventory (measured, indicated and inferred) of 17.9Mt @ <u>5.4% Zn, 0.6% Pb, 2.1% Cu, 59.5g/t Ag and 0.1g/t Au</u> for a contained 2.25Mt of ZnEq metal. Assuming the full terms of the agreement were met the implied cash equivalent on a 100% equity basis is \$532.0M (notional \$236.24 A\$/metal tonne on 100% terms).	2.25Mt	\$532.0M	\$236.24 / metal tonne



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Lady Loretta, NW Queensland, Australia	February 2011: Xstrata entered an acquisition agreement with Cape Lambert Resources Ltd to acquire 25% for a \$30.0M cash buy in. This gave Xstrata 100% of the project. The project is prospective for SEDEX zinc, lead and silver mineralisation. The main project deposit (Lady Loretta) contains a Mineral Resource of 13.6Mt @ 17.0% Zn, 5.8% Pb and 96g/t Ag (Indicated & Inferred), for a contained 3.66Mt of ZnEq metal. Assuming the terms of the agreement were met the implied cash equivalent on a 100% equity basis for the project is \$100.0M (notional \$32.76 A\$/metal tonne on 100% terms).	3.66Mt	\$100.0M	\$32.76 / metal tonne
Panorama, Pilbara, Western Australia	January 2011: Venturex Resources Limited entered into an acquisition agreement with CBH Resources Limited to acquire 100% for a \$26.2M cash buy in consisting of an initial \$0.75M payment and \$24.45M after a capital raising. The projects is prospective for VHMS base and precious metals. The project contains a VHMS deposit of 4.5Mt @ 3.2% Zn, 0.2% Pb, 1.6% Cu and 17g/t Ag (Measured), 10.5Mt @ 3.5% Zn, 0.2% Pb, 1.2% Cu and 17g/t Ag (Indicated), 4.3Mt @ 2.2% Zn, 0.2% Pb, 0.6% Cu and 13g/t Ag (Inferred) for a contained 1.65Mt of ZnEq metal. Assuming the terms of the agreement were met the implied cash equivalent on a 100% equity basis is \$26.2M (notional \$15.85 A\$/metal tonne on 100% terms).	1.65Mt	\$26.2M	\$15.85 / metal tonne
Prairie Downs Eastern Pilbara, Western Australia	June 2010: Ivernica Inc entered into a farm-in/JV agreement with Prairie Downs Metals Limited to secure an option to acquire 60% with an exploration spend of \$3.0M over 18 months. The option can be exercised for \$10M in cash or shares. The projects is prospective for zinc, lead and silver mineralisation along a 20km fault structure. The project has a deposit of 2.28Mt @ 5.22% Zn, 1.59% Pb and 15g/t Ag (Indicated), 0.70Mt @ 4.03% Zn, 1.58% Pb and 14.9g/t Ag (Inferred) for a contained 0.21Mt of ZnEq metal. Assuming the terms of the agreement were met and excluding the royalty/one-off payment, the implied discounted cash equivalent on a 100% equity basis is \$4.66M (notional \$22.41 A\$/metal t on 100% terms). The valuation is only based on the initial \$3.0M expenditure spend required and excludes the \$10.0M option payment.	0.21Mt	\$4.66M	\$22.41 / metal tonne
Skorpion Mine, Namibia	May 2010: Vedanta Resources Plc entered into an acquisition agreement with Anglo American Plc to acquire 100% for a \$782.7M (\$707M US). It is an active zinc mining operation. The project has a resource inventory of 8.3Mt @ 11.27% Zn for a contained 0.94Mt of ZnEq metal. Assuming the terms of the agreement were met the implied cash equivalent on a 100% equity basis would be \$782.7M (notional \$836.77 A\$/metal t on 100% terms).	0.94Mt	\$782.7M	\$836.77 / metal tonne



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Black Mountain Mine & Gamsberg Project, South Africa	May 2010: Vedanta Resources Plc entered into an acquisition agreement with Anglo American Plc (Anglo) to acquire 100% of Anglo's 74% interest in the project for a \$381.2M (\$346M US). The project contains the Black Mountain Mine and the large undeveloped Gamsberg Project. The Black Mountain Mine has resources of 19.3Mt @ <u>2.84% Zn, 3.20% Pb, 0.49% Cu and 38g/t Ag</u> and the Gamsberg project has a resource of 188.4Mt @ <u>6.89% Zn</u> for a total contained 14.53Mt of ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$515.1M (notional \$35.46 A\$/metal t on 100% terms).	14.53Mt	\$515.1M	\$35.46 / metal tonne
Lisheen Mine, Ireland	May 2010: Vedanta Resources Plc entered into an acquisition agreement with Anglo American Plc to acquire 100% for a \$601.5M (\$546M US). It is an operating underground zinc mine. The Lisheen Mine has a resource inventory of 7.3Mt @ <u>11.41% Zn and 1.90% Pb</u> for a contained 0.97Mt of ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$601.5M (notional \$35.46 A\$/metal t on 100% terms).	0.97Mt	\$601.5M	\$623.29 / metal tonne
Manbarram, Northern Territory, Australia	May 2010: Teng Fei Mining Ltd entered into an acquisition agreement with TNG Limited to acquire 100% with an initial cash buy in of \$4.98M (\$4.5M US) and \$2.2M (\$2.0M US within 1 year and a final payment of \$2.2M (\$2.0M US) within 2 years. The project is prospective for Mississippi Valley Type (MVT) zinc, lead and silver mineralisation. The Manbarram Project contains total Indicated and Inferred resources of 33.9Mt @ <u>1.42% Zn, 0.38% Pb and 8.6g/t Ag</u> for a contained 0.69Mt of ZnEq metal. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$9.01M (notional \$12.96 A\$/metal t on 100% terms).	0.69Mt	\$9.01M	\$12.96 / metal tonne
CBH Assets, Australia	March 2010: Toho Zinc Co Ltd (Toho) announced a takeover of CBH Resources Limited (CBH) at an implied price of \$0.24 per CBH share equivalent to \$262.7M for 100% equity. CBH is mining and developing zinc deposits. CBH has total resources of 42.7Mt @ <u>6.66% Zn, 4.49% Pb, 0.11% Cu and 72.4g/t Ag</u> for a contained 4.82Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$262.7M (notional \$54.51 A\$/metal t on 100% terms). Note Toho also purchased all of CBH's convertible notes equating to \$100M, if this was factored in to the overall acquisition cost (\$362.7M) this would imply a notional \$75.26 A\$/metal tonne.	4.82Mt	\$262.7M	\$54.51 / metal tonne



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Perkoa, Bukina Faso, Africa	January 2010: Glencore International AG entered into a farm-in/JV agreement with Blackthorne Resources Limited for 50.1% for a cash buy in of \$86.0M (\$80M US) comprising of \$50M US in equity and \$30M US in project finance. The Perkoa zinc project is an underground mine being developed. The Perkoa project has resources of 6.72Mt @ <u>16.4% Zn and 35.4g/t Ag</u> for a contained 1.16Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$171.6M (notional \$148.16 A\$/metal t on 100% terms).	1.16Mt	\$171.6	\$148.16 / metal tonne
Liontown, Queensland, Australia	December 2009: Kagara Limited entered into an acquisition agreement with Liontown Resources Ltd to acquire 100% of the Liontown polymetallic resource with a cash and shares buy in of \$4.5M. The Liontown deposit has resources of 1.85Mt @ <u>7.5% Zn, 2.4% Pb, 0.6% Cu, 28g/t Ag and 0.55g/t Au</u> for a contained 0.24Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$4.5M (notional \$18.53 A\$/metal t on 100% terms).	0.24Mt	\$4.5M	\$18.53 / metal tonne
Lennard Shelf, Kimberley, Western Australia	April 2009: Meridian Minerals Limited entered into an acquisition agreement with Xstrata and Teck Cominco Limited to acquire 100% with a share buy in of \$1.69M and \$5.0M exploration spend over 2 years. The project is prospective for Mississippi Valley Type (MVT) zinc, lead and silver mineralisation. The project contains two resources Kutarta (Indicated & Inferred) 2.34Mt @ <u>7.2% Zn, 0.5% Pb and 39g/t Ag</u> and Fossil Downs (Inferred) 2.15Mt @ <u>9.5% Zn, 2.1% Pb and 50g/t Ag</u> for a total contained 0.49Mt ZnEq metal. Assuming the terms of the agreement were met, the implied discounted cash equivalent on a 100% equity basis would be \$6.23M (notional \$12.79 A\$/metal t on 100% terms).	0.49Mt	\$6.23M	\$12.79 / metal tonne
Perilya Limited Assets, Australia	December 2008: Zhongjin Lingnan Nonfemet Co. Ltd (Zhongjin) entered into a share placement agreement with Perilya Limited to acquire 50.1% for a cash buy in of \$45.46M. Perilya Limited has two producing assets (Broken Hill and Flinders Project). Perilya has a resource inventory of 37.75Mt @ <u>5.19% Zn, 3.76% Pb, 0.57% Cu and 51g/t Ag</u> for a contained 4.37Mt ZnEq metal. Assuming the terms of the agreement were met, the implied discounted cash equivalent on a 100% equity basis would be \$90.75M (notional \$20.78 A\$/metal t on 100% terms).	4.37Mt	\$90.75	\$20.78 / metal tonne



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Zinifex Assets, Australia & Canada	March 2008: Oxiana Limited announced a merger (takeover) with Zinifex Limited, where Zinifex Limited shareholder will receive 3.1931 Oxiana Limited shares, a share buy in of \$6,174.8M at the time of announcement. Zinifex had the producing Century zinc mine and a number of advanced zinc resources. Zinifex Limited had a resource inventory of 16.6Mt Zn, 2.5Mt Pb, 0.8Mt Cu, 256.4Moz Ag and 1.7Moz Au for a contained 25.0Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$6,174.8M (notional \$247.05 A\$/metal t on 100% terms).	25.0Mt	\$6,174.8M	\$247.05 / metal tonne
Lennard Shelf, Kimberley, Western Australia	January 2008: CBH Resources Limited entered into a farm-in/JV agreement with Lennard Shelf Pty Ltd a 50/50 JV company between Xstrata and Teck Cominco Limited to earn 70% for an exploration spend of \$4.4M over 3 years. The project is prospective for Mississippi Valley Type (MVT) zinc, lead and silver mineralisation. The main deposit is the Fossil Downs Inferred resource 2.15Mt @ 9.5% Zn, 2.1% Pb and 50g/t Ag for a total contained 0.38Mt ZnEq metal. Assuming the terms of the agreement were met, the implied discounted cash equivalent on a 100% equity basis would be \$5.45M (notional \$14.49 A\$/metal t on 100% terms).	0.38Mt	\$5.45M	\$14.49 / metal tonne
Citronen, Greenland	March 2007: Ironbark Gold Limited entered into an acquisition agreement with Bedford Resource Holdings Limited for a cash and share buy in of \$26.0M. The project is prospective for SEDEX zinc and lead mineralisation. The Citronen deposit had a resource of 7.1Mt @ 8.8% Zn and 1.1% Pb (Indicated) and 9.7Mt @ 7.1% Zn and 0.7% Pb (Inferred) for a total contained 1.39Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$26.0M (notional \$18.69 A\$/metal t on 100% terms).	1.39Mt	\$26.0M	\$18.69 / metal tonne
Triako Resources Ltd Assets, New South Wales, Australia	May 2006: CBH Resources Limited announced a takeover of Triako Resources Ltd (Triako) at an implied price of \$2.00 per Triako share equivalent to \$67.44M. Triako has a resource inventory of 1.94Mt @ 2.8% Zn, 2.5% Pb, 0.2% Cu, 14g/t Ag and 6.7g/t Au for a contained 0.16Mt ZnEq metal. Assuming the terms of the agreement were met, the implied cash equivalent on a 100% equity basis would be \$67.44M (notional \$416.21 A\$/metal t on 100% terms).	0.16Mt	\$67.44M	\$416.21 / metal tonne



Table 15 Market Transactions Involving Zinc-Lead Exploration Projects at Moderate-Confidence Mineral Resource Stage to Operating Mines within Australia and the World

Project	Transaction Details & Type	Contained ZnEq Metal Tonnes (t)	Purchase Price 100% Basis (A\$)	Implied Value / Metal Tonne (A\$)
Napier Range, Kimberley, Western Australia	February 2006: CBH Resource Limited entered into a farmin/JV agreement with Teck Cominco Limited to earn 49% for an exploration spend of \$1.0M over 2 years. The project is prospective for Mississippi Valley Type (MVT) zinc, lead and silver mineralisation. The main deposit is the Wagon Pass Inferred resource 0.59Mt @ 8.5% Zn and 8.0% Pb for a contained 0.08Mt ZnEq metal. Assuming the terms of the agreement were met, the implied discounted cash equivalent on a 100% equity basis would be \$1.86M (notional \$24.06 A\$/metal t on 100% terms).	0.08Mt	\$1.86M	\$24.06 / metal tonne



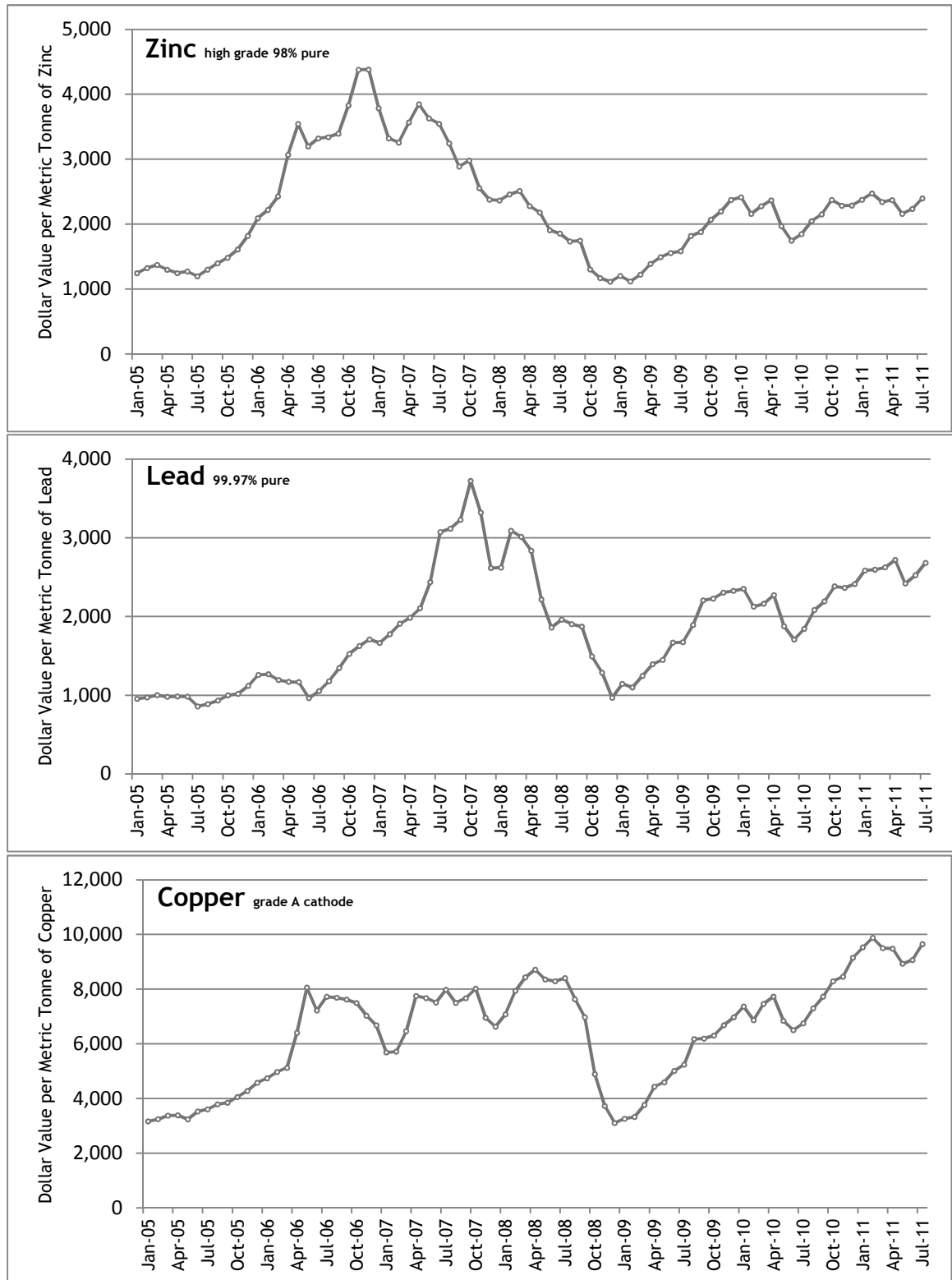
Table 16 Market Transactions Involving Zinc-Lead Exploration Projects at a particularly early and conceptual stage within Australia				
Project	Transaction Details & Type	Area (km²)	Purchase Price 100% Basis (A\$)	Implied Value/km² (A\$)
Yandicoogina, Pilbara, Western Australia	March 2011: Laconia Resources Limited entered into a purchase agreement with Shaw River Resources to acquire 100% with a \$153K share buy-in. The project area is prospective for VHMS Zinc mineralisation. Assuming the terms of the agreement were met the implied cash equivalent on a 100% equity basis is \$153K.	108.7	\$153K	\$1,408
McArthur River, Northern Territory, Australia	September 2010: Rox Resources Limited entered into a purchase with Legend international holdings Inc to acquire 100% with a \$99K share buy-in. The project area is considered prospective for SEDEX Zinc mineralisation. Assuming the full terms of the agreement were met the implied cash equivalent on a 100% equity basis is \$99K	181.8	\$99K	\$545
Lennard Shelf, Kimberley, Western Australia	October, 2009: Meridian Minerals Limited entered into a purchase agreement with Zinc Co Australia Limited to acquire 100% with a \$319.6K cash and shares buy-in. The project area is considered prospective for Mississippi Valley Type (MVT) Zinc and lead mineralisation. Assuming the full terms of the agreement were met the implied cash equivalent on a 100% equity basis is \$319.6K.	244	\$319.6K	\$1,310
Nonning, Eyre Peninsula, South Australia	June 2008: Minataur Exploration Limited entered into a farm-in/JV agreement with Menninnie Metals Limited to earn 51% with \$1.00M exploration spend over 3 years. The project area is considered prospective for zinc and lead mineralisation. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$1.70M.	312	\$1.70M	\$5,447
Lennard Shelf, Kimberley, Western Australia	September 2007: Rox Resources Limited entered into a farm-in/JV agreement with Avalon Minerals Ltd to earn 60% with a \$0.3M share buy in and \$2.00M exploration spend over 3 years. The project area is considered prospective for Mississippi Valley Type (MVT) Zinc and lead mineralisation. Assuming the terms of the agreement were met the implied discounted cash equivalent on a 100% equity basis is \$3.43M.	2,594	\$3.43M	\$1,324

8.4.2 Commodity Prices

Ravensgate has examined the historical commodity charts (Figure 17 and Figure 18) for general trends over time. A general analysis of the price chart for Zinc in Figure 17 indicates a rapid price increase from July 2005 to December 2006, followed by a steady decline to February 2009 followed by a recovery until February 2010, from where it has remained relatively steady. Ravensgate has taken into consideration the general commodity trend as an influence on deriving a final project valuation.



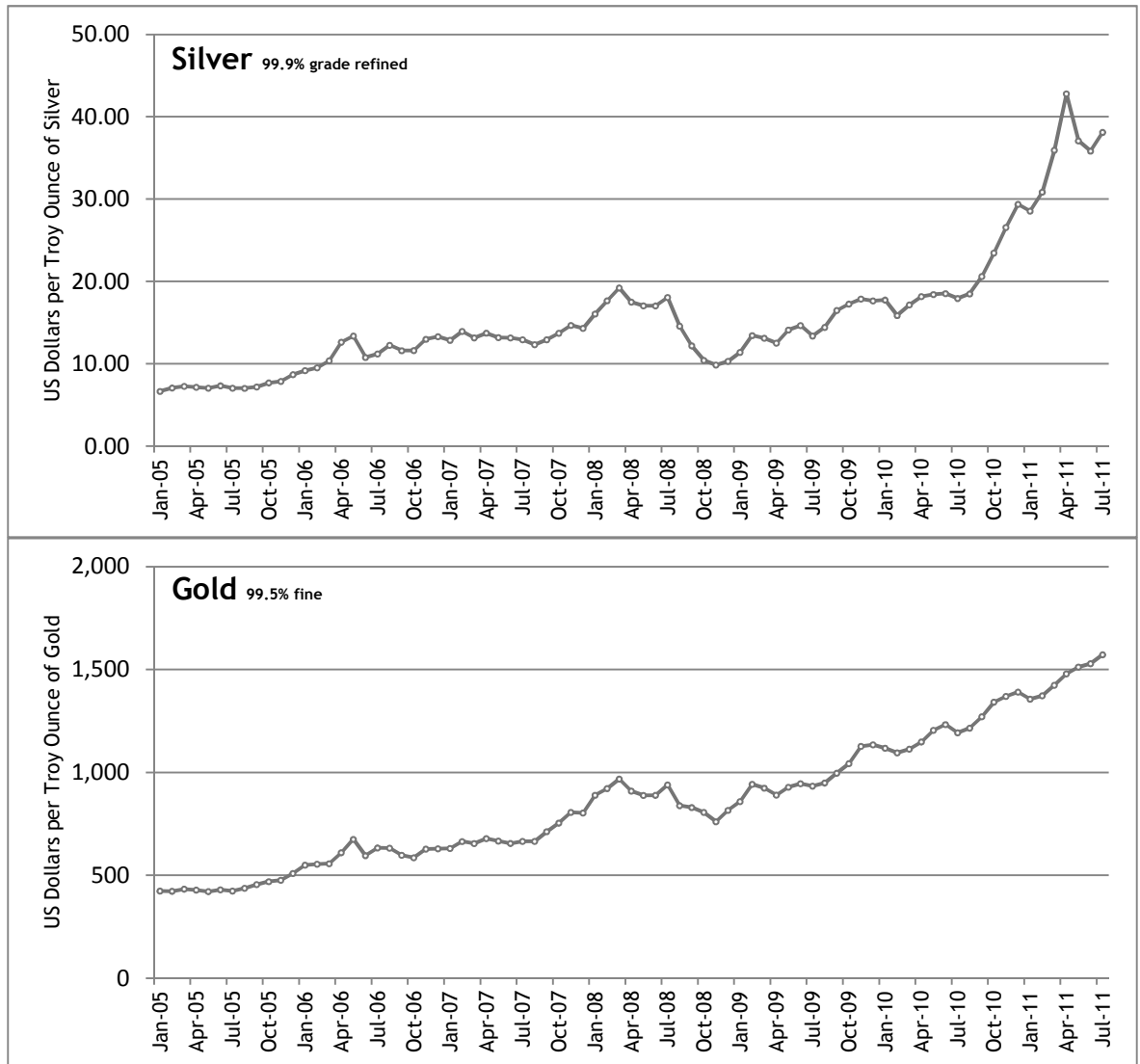
Figure 17 Price chart for Zinc, Lead and Copper Monthly Price January 2005 to July 2011



(Source website: <http://www.indexmundi.com/commodities/>)



Figure 18 Price Chart for Silver and Gold Monthly Price January 2005 to July 2011



(Source website: <http://www.indexmundi.com/commodities/>)

8.5 Mineral Asset Valuations

8.5.1 Citronen Zinc Project, Greenland

8.5.1.1 Selection of Valuation Method

The Citronen Fjord Base Metal Project can be divided up into the licences containing the Citronen Base Metal Deposit (2007/02) and the surrounding exploration licences (2007/31, 2010/47, 2008/26 & 2011/33). The exploration licence containing the deposit can be classified as a “Pre-Development Project” mineral asset where Mineral Resources have been identified and their extent estimated, but where a positive development decision has not been made. The surrounding exploration licences were designated as an “Exploration Area” mineral asset where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified.

The commodity item of interest for exploration is primarily SEDEX zinc+lead mineralisation. A Mineral Resource as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2004 Edition) has been reported as listed in Section 3.6. In valuing the mineral asset of the Citronen Fjord Project, Ravensgate considers



the 'DCF/NPV' method inappropriate due to the lack of an Ore Reserve or Scoping/Feasibility Studies.

For the valuation of Ironbark Zinc Limited's reported mineral resources, Ravensgate has valued the reported mineral resources with a 2% Zn cut-off.

Ravensgate has elected to apply the Comparable Transaction Method to value the project after consideration of the various valuation methods outlined in Section 8.1 and the geological / exploration information outlined in Section 3.

8.5.1.2 *Project Analysis - Comparable Transactions Method*

Ravensgate's analysis of the zinc-lead market transactions indicates that the implied value of more advanced or strategic exploration projects with zinc and lead Mineral Resources generally lies around \$6.77 to \$32.76 per contained resource ZnEq metal tonne. Within this range Ravensgate has selected an applicable range of \$15.50 to \$26.21 per contained resource ZnEq metal tonne to apply to the total Mineral Resource listed in Section 3.6, which relates to approximately \$85.0M to \$143.8M for the contained metal within the current Mineral Resource Estimate (5.5Mt ZnEq metal). In selecting the lower end of the range (\$15.50), Ravensgate has taken the original purchase of the Citronen Fjord project in March 2007 for \$18.69 per contained resource ZnEq metal tonne as a base price and discounted it by 25% (\$14.02) to reflect the purchase occurring when the zinc price was far higher than it is at present, and then increased that to \$15.50 reflecting the outcome of successful exploration. Ravensgate has applied a discount rate of 20% to the upper value of the range \$32.76 to reflect the inherently riskier exploration due to the higher costs, as exploration costs are a lot higher in Greenland compared to other parts of the world due to its remoteness and often rugged topography. The purchase of the Citronen Fjord Project in March 2007 is the most comparable transaction being the same project, hence the same geographic location, geology and mineralisation styles. The reason why it has been chosen as the base value for the valuation is because subsequent to this time the resource has increased and the geological confidence has improved with measured and indicated categories of material now reported (Table 7). From this range a preferred value of \$110.33M has been selected which reflects a value of \$20.11 per contained resource ZnEq metal tonne, which is approximately middle of the range and reflects the outcome of successful exploration to date and the quality of the resources, with most metal being contained in indicated and measured categories, (In 'compliance' of the JORC Code (2004). Ravensgate considers the project is of merit and worthy of further exploration and study.

Ravensgate's analysis of zinc and lead related base metal market transactions for early-stage, conceptual zinc and lead projects, indicates an implied value between \$545 to \$5,447 per square kilometre, with a cluster of transactions between \$1,310 to \$1,408 per square kilometre. Exploration costs are a lot higher in Greenland compared to other parts of the world due to its remoteness and rugged topography. Ravensgate has applied a 20% discount rate to the assets in Greenland to reflect the inherently riskier exploration due to the higher costs and therefore has applied an implied value range of \$436 to \$4,358 per square kilometre for valuing the Exploration Area Mineral Assets.

Ravensgate is of the opinion that the exploration licences 2007/31, 2010/47, 2008/26 and 2011/33 are "Exploration Area" mineral assets at an early stage and conceptual in nature and that an implied value between \$436 to \$4,358 per square kilometre based on the comparable transactions in Table 16 is appropriate in assisting in the valuing of these tenements (Table 17). Ironbark has completed minimal 'on the ground' exploration as yet within these tenements. Based on the range of \$436 to \$4,358 per square kilometre this relates to \$1.22M to \$12.17M. From this range a preferred value of \$3.13M has been selected, which relates back to a value of \$1,120 per square kilometre (\$1,400 discounted by 20%) and is towards the low end of the range which reflects the exploration to date and cluster of comparable transactions observed in Table 16 between \$1,310 to \$1,408 per square kilometre. Ravensgate considers the project is of merit and worthy of further exploration and study.



Table 17 Ironbark - Project Technical Valuation for Citronen Fjord Project

Citronen Fjord Project	Mineral Asset	Ownership 100%	Area km ²	Valuation		
				Low \$M	High \$M	Preferred \$M
2007/02	Pre-Development	100%	120 ¹	85.03	143.78	110.33
2007/31	Exploration Area	100%	412	0.18	1.80	0.46
2010/47	Exploration Area	100%	1,192	0.52	5.19	1.34
2008/26	Exploration Area	100%	140	0.06	0.61	0.16
2011/33	Exploration Area	100%	1,048	0.46	4.57	1.17
Total Citronen	All	100%	2,912	86.25	155.95	113.45

¹ Area not applicable to valuation due to existence of a resource

* The valuation has been compiled to an appropriate level of precision and minor rounding errors may occur.

8.5.2 Mestersvig Base Metal Project, Greenland

8.5.2.1 Selection of Valuation Method

The Mestersvig Base Metal Project licences (2007/32 & 2011/28) can be classified as “Exploration Area” mineral assets where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified.

The commodity item of interest for exploration is primarily zinc+lead±silver mineralisation associated with epithermal style quartz veins. A Mineral Resource as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2004 Edition) has not been defined. In valuing the mineral asset of the Mestersvig Project, Ravensgate considers the ‘DCF/NPV’ method inappropriate due to the lack of an Ore Reserve or Scoping/Feasibility Studies.

Ravensgate therefore has elected to apply the Comparable Transaction Method to value the project after consideration of the various valuation methods outlined in Section 8.1 and the geological / exploration information outlined in Section 4.

8.5.2.2 Project Analysis - Comparable Transactions Method

Ravensgate’s analysis of zinc and lead related base metal market transactions for early-stage, conceptual zinc and lead projects, indicates an implied value between \$545 to \$5,447 per square kilometre, with a cluster of transactions between \$1,310 to \$1,408 per square kilometre. Exploration costs are a lot higher in Greenland compared to other parts of the world due to its remoteness and often rugged topography. Ravensgate has applied a 20% discount rate to the assets in Greenland to reflect the inherently riskier exploration due to the higher costs and therefore has applied an implied value range of \$436 to \$4,358 per square kilometre for valuing the Exploration Area Mineral Assets.

Ravensgate is of the opinion that the exploration licences 2007/32 and 2011/28 are “Exploration Area” mineral assets at an early stage and conceptual in nature and that an implied value between \$436 to \$4,358 per square kilometre based on the comparable transactions in Table 16 is appropriate in assisting in the valuing of these tenements (Table 18). Ironbark has completed minimal ‘on the ground’ exploration as yet within these tenements. Based on the range of \$436 to \$4,358 per square kilometre this equates to a value range of \$0.41M to \$4.10M for the project. From this range a preferred value of \$1.05M has been selected, which relates back to a value of \$1,120 per square kilometre (\$1,400 discounted by 20%) and is towards the low end of the range which reflects the exploration to date and cluster of comparable transactions observed in Table 16 between \$1,310 to \$1,408 per square kilometre. Ravensgate considers the project is of merit and worthy of further exploration and study.



Table 18 Ironbark - Project Technical Valuation for Mestersvig Project

Mestersvig Project	Mineral Asset	Ownership 100%	Area km ²	Valuation		
				Low \$M	High \$M	Preferred \$M
2007/32	Exploration Area	100%	460	0.20	2.01	0.52
2011/28	Exploration Area	100%	481	0.21	2.09	0.54
Total Mestersvig	All	100%	941	0.41	4.10	1.05

* The valuation has been compiled to an appropriate level of precision and minor rounding errors may occur.

8.5.3 Washington Land Base Metal Project, Greenland

8.5.3.1 Selection of Valuation Method

The Washington Land Base Metal Project is considered to be an “Exploration Area” mineral asset, where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified. A Mineral Resource as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2004 Edition) has not been reported for the Washington Land project. The commodity item of interest for exploration is primarily zinc-lead base metal mineralisation of the Mississippi Valley Type (MVT) style.

Ravensgate has elected to apply the Comparable Transaction Method to value the project after consideration of the various valuation methods outlined in Section 8.1 and the geological / exploration information outlined in Section 5.

8.5.3.2 Project Analysis - Comparable Transactions Method

Ravensgate’s analysis of zinc and lead related base metal market transactions for early-stage, conceptual zinc-lead projects, indicates an implied value between \$545 to \$5,447 per square kilometre, with a cluster of transactions between \$1,310 to \$1,408 per square kilometre. Exploration costs are a lot higher in Greenland compared to other parts of the world due to its remoteness and often rugged topography. Ravensgate has applied a 20% discount rate to the assets in Greenland to reflect the inherently riskier exploration due to the higher costs and therefore has applied an implied value range of \$436 to \$4,358 per square kilometre for valuing the Exploration Area Mineral Assets, this relates to \$0.32M to \$3.22M. Ravensgate has a preferred value of \$0.78M, reflecting the early stage that exploration is at and that no significant results have been returned from drilling to date and no mineral resources in accordance with the JORC Code (2004) has yet been defined. The value of \$0.78M relates back to an implied value of \$1,056 (\$1,320 discounted at 20%) per square kilometre, which is comparable to the two transactions between Rox Resources Limited and Avalon Minerals Ltd; and Meridian Minerals Limited and Zinc Co Australia Ltd, which is considered to be geologically analogous, with both projects considered prospective for MVT style zinc-lead mineralisation, being \$1,324 and \$1,310 per square kilometre respectively.

8.5.4 Belara Base Metal Project, New South Wales, Australia

8.5.4.1 Selection of Valuation Method

The Belara Base Metal Project can be divided up into the licence containing the Belara and Native Bee Base Metal Deposits (EL6576) and the surrounding exploration licence (EL6749). The exploration licence containing the deposits can be classified as an “Advanced Exploration Area” mineral asset where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by some form of detailed geological sampling. A JORC compliant mineral resource has been estimated (Table 14), with all



the material in the inferred category being of lower geological confidence. The surrounding exploration licence was designated as an “Exploration Area” mineral asset where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified. The commodity items of interest for exploration are primarily base metals (zinc-lead) and to a lesser extent gold. Ravensgate considers the project is of merit and worthy of further exploration and studies.

In valuing the exploration potential of the Belara Base Metal-Gold Project, Ravensgate considers the ‘DCF/NPV’ valuation method to be inappropriate due to the lack of an Ore Reserve or Scoping/Feasibility Studies. Ravensgate has elected to apply the Comparable Transaction Method and Joint Venture Terms Method to value the project after consideration of the various valuation methods outlined in Section 8.1 and the geological / exploration information outlined in Section 0.

8.5.4.2 Project Analysis - Comparable Transactions Method

Ravensgate’s analysis of the zinc-lead-base metal related market transactions in Australia indicates that the implied value of more advanced or strategic exploration projects with zinc-lead-base metal Mineral Resources generally lies around \$6.77 to \$32.76 per contained resource ZnEq metal tonne. Ravensgate has selected an applicable range of \$6.77 to \$14.49 per contained ZnEq metal tonne to be appropriate for valuing the project when comparing the size, grade and geological confidence (inferred category resources only) with the comparable transactions in Table 15. This range relates to approximately \$1.53M to \$3.28M (Table 19) for the contained metal within the current Mineral Resource Estimate (0.23Mt ZnEq metal). A preferred value of \$2.41M has been selected which relates to a \$10.63 per contained resource ZnEq metal tonne, which is the midpoint of the range.

Ravensgate’s analysis of zinc and lead related base metal market transactions for early-stage, conceptual zinc and lead projects, indicates an implied value between \$545 to \$5,447 per square kilometre, with a cluster of transactions between \$1,310 to \$1,408 per square kilometre. Based on the range of \$545 to \$5,447 per square kilometre this equates to \$0.05M to \$0.47M. From this range a preferred value of \$0.12M has been selected, which relates back to a value of \$1,400 per square kilometre and is towards the low end of the range which reflects the exploration to date and cluster of comparable transactions observed in Table 16 between \$1,310 to \$1,408 per square kilometre.

Table 19 Ironbark - Comparable Transactions Valuation for Belara Project

Belara Project	Mineral Asset	Ownership 100%	Area km ²	Valuation		
				Low \$M	High \$M	Preferred \$M
EL6576	Advanced Exploration Area	100%	54 ¹	1.53	3.28	2.41
EL6749	Exploration Area	100%	86.4	0.05	0.47	0.12
Total Belara	All	100%	140.4	1.58	3.76	2.53

¹ Area not applicable to valuation due to existence of a resource.

* The valuation has been compiled to an appropriate level of precision and minor rounding errors may occur.

8.5.4.3 Project Analysis - Joint Venture Terms

Ravensgate considers the joint venture terms valuation method is appropriate, as it is a very recent joint venture agreement and is a good indication of what an arm’s length buyer is willing to pay for the project. Using the terms of the joint venture as outlined in Section 8.3 and the joint venture terms equation in Section 8.1 with a discount rate of 10% reflecting a typical company’s cost of capital and considering inflation, assuming the terms of the joint venture are met the implied discounted cash equivalent on a 100% equity basis is \$1.76M.



8.5.4.4 **Belara Base Metal Project - Valuation Conclusion**

By using the Comparable Transactions and Joint Venture Terms valuation methods for valuing a 100% interest in the exploration potential associated with the Belara Base Metal Project, a range of selected values from \$1.76M to \$2.53M can be derived. Ravensgate has elected to assign a preferred value of \$2.15M in the middle of the range, recognising the mineral asset prospects and exploration drilling and geological work outlined to date. Ravensgate considers the Belara Base Metal Project is of merit and worthy of further exploration.

8.5.5 **Captains Flat Base Metal Project, New South Wales, Australia**

8.5.5.1 **Selection of Valuation Method**

The Captains Base Metal Project can be divided up into the licences comprising of the farm-in / joint venture with Golden Minerals Resources Limited (EL6381 & EL6840) containing the historical George mine and numerous other prospects can be classified as an “Advanced Exploration Area” mineral asset where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by some form of detailed geological sampling. A JORC compliant mineral resource has not been estimated. The other exploration licences (EL6990 & EL6925) were designated as “Exploration Area” mineral assets where mineralisation may or may not have been identified, but where specifically a JORC compliant mineral resource has not been identified. The commodity items of interest for exploration are primarily base metals (zinc-lead) and also a some gold. Ravensgate considers the project is of merit and worthy of further exploration and studies.

In valuing the exploration potential of the Captains Flat Base Metal-Gold Project, Ravensgate considers the ‘DCF/NPV’ valuation method to be inappropriate due to the lack of an Ore Reserve or Scoping/Feasibility Studies. Ravensgate has elected to apply the Comparable Transaction Method and Joint Venture Terms Method to value the project after consideration of the various valuation methods.

8.5.5.2 **Project Analysis - Comparable Transactions Method**

Ravensgate’s analysis of zinc and lead related base metal market transactions for early-stage, conceptual zinc and lead projects, indicates an implied value between \$545 to \$5,447 per square kilometre, with a cluster of transactions between \$1,310 to \$1,408 per square kilometre. Based on the range of \$545 to \$5,447 per square kilometre this relates to \$0.08M to \$0.85M (Table 20). From this range a preferred value of \$0.39M has been selected, which relates back to a value of \$1,400 per square kilometre for Exploration area mineral assets and \$4,000 per square kilometre for Advanced Exploration Area mineral assets and is towards the low end of the range which reflects the exploration to date and cluster of comparable transactions observed in Table 16 between \$1,310 to \$1,408 per square kilometre.

Table 20 Ironbark - Comparable Transactions Valuation for Captains Flat Project

Captains Flat Project	Mineral Asset	Ownership %	Area km ²	Valuation		
				Low \$M	High \$M	Preferred \$M
EL6381	Advanced Exploration Area	25.5%	240.5	0.03	0.33	0.25
EL6840	Advanced Exploration Area	25.5%	19.59	0.01	0.03	0.02
EL6990	Exploration Area	100%	33.34	0.02	0.18	0.05
EL6925	Exploration Area	100%	55.51	0.03	0.30	0.08
Total Captains Flat	All	25.5% & 100%	348.94	0.08	0.85	0.39

* The valuation has been compiled to an appropriate level of precision and minor rounding errors may occur.



8.5.5.3 Project Analysis - Joint Venture Terms

Ravensgate considers the joint venture terms valuation method is appropriate for valuing the two tenements (EL6381 & EL6840) which are a part of the joint venture, as it is a very recent joint venture agreement and is a good indication of what an arm's length buyer is willing to pay for the project. Using the terms of the joint venture as outlined in Section 8.3 and the joint venture terms equation in Section 8.1 with a discount rate of 10% reflecting a typical company's cost of capital and considering inflation, assuming the terms of the joint venture are met the implied discounted cash equivalent on a 100% equity basis is \$2.27M. Ironbark's equity interest in these tenements is 25.5%, which equates to \$0.58M.

8.5.5.4 Captains Flat Base Metal Project - Valuation Conclusions

By using the Comparable Transactions and the Joint Venture Terms valuation methods for valuing the tenements (EL6381 & EL6840), which Ironbark has a 25.5% interest in the exploration potential of the Captains Flat Base Metal Project, a range of selected values from \$0.27M to \$0.58M can be derived. Ravensgate has elected to assign a preferred value of \$0.43M in the middle of the range. In addition are the two tenements (EL6990 & EL6925) valued by comparable transactions, which have a range of selected values from \$0.05M to \$0.48M. Ravensgate has elected to assign a preferred value of \$0.12M, which equates to \$1,400 per square kilometre and is towards the low end of the range which reflects the exploration to date and cluster of comparable transactions observed in Table 16 between \$1,310 to \$1,408 per square kilometre.

Based on these valuation methods for valuing Ironbark's interest in the exploration potential associated with the Captains Flat Base Metal Project, a range of selected values from \$0.31M to \$1.06M can be derived. Ravensgate has elected to assign a preferred value of \$0.55M in the middle of the range, recognising the mineral asset prospects and exploration drilling and geological work outlined to date. Ravensgate considers the Captains Flat Base Metal Project is of merit and worthy of further exploration.

8.6 Valuation Summary

Ravensgate has concluded the Greenland and Australian Projects are of merit (although at varying stages of exploration and subsequent Mineral Asset classification), and worthy of further exploration. A summary of the Greenland and Australian project valuations is provided in Table 21. The applicable valuation date is 1 September 2011 and is derived from comparisons where possible using the Joint Venture Terms and Comparable Transactions valuation methods. The value of the listed Projects is considered to lie in a range from \$89.06M to \$166.86M, within which range Ravensgate has selected a preferred value of \$117.98.

Table 21 Ironbark - Project Technical Valuation Summary for Greenland and Australian Projects					
Project	Mineral Asset	Ownership %	Valuation		
			Low \$M	High \$M	Preferred \$M
Citronen	Pre-Development Exploration Area	100%	86.25	155.95	113.45
Mestersvig	Exploration Area	100%	0.41	4.10	1.05
Washington Land	Exploration Area	100%	0.32	3.22	0.78
Belara	Advanced Exploration Area	100%	1.76	2.53	2.15
Captains Flat	Advanced Exploration Area	25.5% & 100%	0.31	1.06	0.55
Combined Projects	All listed projects	25.5% & 100%	89.06	166.86	117.98

* The combined valuation has been compiled to an appropriate level of precision and minor rounding errors may occur

9. TENEMENT DETAILS

Table 22 Project Tenement Details for Greenland and Australia						
PROJECT	TENEMENT ID	% IRONBARK	MANAGER	EXPIRY DATE	Area (km ²)	TARGET COMMODITY
Citronen Fjord	2007/02	100%	Ironbark	31-Dec-2011	120	Base Metals
	2007/31	100%	Ironbark	31-Dec-2011	412	Base Metals
	2010/47	100%	Ironbark	31-Dec-2014	1,192	Base Metals
	2008/26	100%	Ironbark	30-Dec-2013	140	Base Metals
	2011/33 ¹	100%	Ironbark	Not available	1,048	Base Metals
Mestersvig	2007/32	100%	Ironbark	31-Dec-2012	461	Base Metals
	2011/28 ²	100%	Ironbark	Not available	480	Base Metals
Washington Land	2007/33	100%	Ironbark	31-Dec-2011	738	Base Metals
Belara	EL6576	100%	Global Mineral Resources Limited	19-Jun-2012	54	Base Metals
	EL6749	100%	Global Mineral Resources Limited	16-Apr-2011 [#]	86.4	Base Metals
Captains Flat	EL6381	25.5%	Ironbark	21-Feb-2012	240.5	Base Metals
	EL6840	25.5%	Ironbark	19-Jul-2011 [#]	19.59	Base Metals
	EL6990	100%	Ironbark	18-Dec-2011	33.34	Base Metals
	EL6925	100%	Ironbark	31-Oct-2011	55.51	Base Metals

¹Renewal application lodged 4 January 2011 over previously held tenement 2008/25.

² Application lodged 23 November 2010, unknown if has been granted, but Ironbark have conducted work on the tenement in recent months.

[#]A tenement renewal has been applied for.

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11. GLOSSARY

A\$	Australian dollars.
Ad valorem	In proportion to the value of.
Aeolian	Formed or deposited by wind.
Aerial photography	Photographs of the Earth's surface taken from an aircraft.
Aeromagnetic	A survey undertaken by helicopter or fixed-wing aircraft for the purpose of recording magnetic characteristics of rocks by measuring deviations of the Earth's magnetic field.
Aircore (AC)	Drilling method employing a drill bit that yields sample material which is delivered to the surface inside the rod string by compressed air.
Alluvium	Clay silt, sand, gravel, or other rock materials transported by flowing water and deposited in comparatively recent geologic time as sorted or semi-sorted sediments in riverbeds, estuaries, and flood plains, on lakes, shores and in fans at the base of mountain slopes and estuaries.
Alteration	The change in the mineral composition of a rock, commonly due to hydrothermal activity.
Andesite	An intermediate volcanic rock composed of andesine and one or more mafic minerals.
Anomalous	A departure from the expected norm, generally geochemical or geophysical values higher or lower than the norm.
Anticline	An area of rocks that have been arched upwards in the form of a fold.
Archaean	The oldest rocks of the Precambrian era, older than about 2,500 million years.
Argillaceous	Describing rocks or sediments containing particles that are silt- or clay-sized, less than 0.625 mm in size.
Arsenopyrite	A mineral of iron, sulphur, and arsenic commonly associated with metamorphism around igneous intrusions.
Assay	A procedure where the element composition of a rock soil or mineral sample is determined.
Auger drilling	A rotary drilling technique which uses a blade drill bit and screw auger shaft to return sample to the surface.
Auriferous	Containing gold.
B	Billions.
Bank cubic metre (BCM)	A cubic metre of material in-situ.
Basalt	A volcanic rock of low silica (<55%) and high iron and magnesium composition, composed primarily of plagioclase and pyroxene.
Base metals	A non-precious metal, usually referring to copper, lead and zinc.
Basement	Crust of the earth, igneous or metamorphic rocks overlain by sedimentary deposits.
Basin	A large depression within which sediments are sequentially deposited and lithified.
Bench	A vertical segment which is mined as a whole.
Beneficiable ore (BFO)	Material that can be processed and upgraded to

	produce a saleable concentrate.
BIF	A rock consisting essentially of iron oxides and cherty silica and possessing a marked banded appearance.
BLEG	Bulk leach extractable gold, a method for detection of fine-grained gold in soils.
Boudins	Typical features of sheared veins and shear zones where, due to stretching along the shear foliation and compression perpendicular to this, rigid bodies break up.
Breccia	Rock consisting of angular fragments enclosed in a matrix, usually the result of persistent fracturing by tectonic or hydraulic means.
Brittle	Rock deformation characterised by brittle fracturing and brecciation.
Cainozoic	An era of geological time spanning the period from 65 million years ago to the present.
Calcite	A mineral of composition CaCO_3 (calcium carbonate) it is an essential component of limestones and marbles.
Calcrete	Superficial residual deposits cemented by or precipitated from groundwater as secondary calcium carbonate as a result of evaporation.
Carbonate	Rock of sedimentary or hydrothermal origin, composed primarily of calcium, magnesium or iron and CO_3 . Essential component of limestones and marbles.
CAPEX	Capital expenditure.
Caprock	An impervious rock layer generally close to surface which may act as a seal.
Chalcopyrite	CuFeS_2 , a copper ore.
Chert	Fine grained sedimentary rock composed of cryptocrystalline silica.
Chlorite	A green coloured hydrated aluminium-iron-magnesium silicate mineral (mica) common in metamorphic rocks.
Clastic	Pertaining to sedimentary rocks composed primarily from fragments of pre-existing rocks or fossils.
Clays	A fine-grained, natural, earthy material composed primarily of hydrous aluminium silicates.
Concentrate	A product containing valuable metal from which most of the waste material has been eliminated (in this case high grade magnetite or hematite).
Contract-miner	An operating scenario in which the mine owner contracts a third party. The third party owns the mining fleet and directly employs personnel to conduct mining operations.
Colluvium	A loose, heterogeneous and incoherent mass of soil material deposited by slope processes.
Conglomerate	A rock type composed predominantly of rounded pebbles, cobbles or boulders deposited by the action of water.
Costean	Exploration trench.
Craton	Large, usually ancient, stable mass of the earth's crust.
Marginal Cutoff grade	The lowest grade of mineralised material. Considered to be economic for a particular project.
Density	Mass of material per unit volume.

Depletion	The lack of a mineral in the near-surface environment due to leaching processes during weathering.
Deposit	A mineralised body which has been physically delineated by sufficient drilling and found to contain sufficient average grade of metal or metals to warrant further exploration and development expenditure.
Dewater	The process of decreasing the water table below the current mining surface.
Diagenesis	Any chemical, physical, or biological change undergone by a sediment during and after its lithification, not including weathering and metamorphism.
Diamond drilling	A method of obtaining a cylindrical core of rock by drilling with a diamond impregnated bit.
Dilational	Open space within a rock mass commonly produced in response to folding or faulting.
Dilution	The lowering of the grade of ore being mined due to the inclusion of waste rock or low-grade ore.
Dip	The angle at which a rock stratum or structure is inclined from the horizontal.
Disseminated	Widely and evenly spread.
Dmt	Dry metric tonne.
Dolerite	A medium grained mafic intrusive rock composed mostly of pyroxenes and sodium-calcium feldspar.
Ductile	Deformation of rocks or rock structures involving stretching or bending in a plastic manner without breaking.
Dunite	A dense igneous rock that consists mainly of olivine and is commonly a source of magnesium mineralisation.
Duricrust	Hard-pan, cemented material.
Dykes	A tabular body of intrusive igneous rock, crosscutting the host strata at a high angle.
Electromagnetic survey	A geophysical technique whereby transmitted electromagnetic fields are used to energise and detect conductive material beneath the earth's surface.
Eluvial	Weathered material which is still at or near its point of formation.
En echelon	Parallel or sub-parallel, closely-spaced, overlapping or step-like minor structural features in rock, such as faults and tension fractures, that are oblique to the overall structural trend.
Epiclastic	Rocks formed from fragments of pre-existing volcanic rock.
Epithermal	Mineralisation style of gold or silver formed deep within the Earth's crust from ascending hot solutions.
Erosional	The group of physical and chemical processes by which earth or rock material is loosened or dissolved and removed from any part of the Earth's surface.
Facies	Characteristic features of rocks such as sedimentary rock type, mineral content, metamorphic grade, fossil content and bedding characteristics.
Fault zone	A wide zone of structural dislocation and faulting.
Feldspar	A group of rock forming minerals.
Felsic	An adjective indicating that a rock contains abundant feldspar and silica.

Ferricrete	A mineral conglomerate consisting of surficial sand and gravel cemented into a hard mass by iron oxide derived from the oxidation of percolating solutions of iron salts.
Ferruginous	Iron-rich.
Fluvial deposits	Applied to sand and gravel deposits laid down by streams or rivers.
Foliated	Banded rocks, usually due to crystal differentiation as a result of metamorphic processes.
Footwall	Surface of rock along the fault plane having rock below it.
g/t	Grams per tonne.
Gabbro	A fine to coarse grained, dark coloured, igneous rock composed mainly of calcic plagioclase, clinopyroxene and sometimes olivine.
Gangue	That part of an ore deposit from which a metal or metals is not extracted.
Geochemical	Pertains to the concentration of an element.
Geophysical	Pertains to the physical properties of a rock mass.
GIS database	A system devised to present partial data in a series of compatible and interactive layers.
Gneiss	Coarse-grained, banded metamorphic rock.
Gossan	Leached, oxidised near surface part of a vein containing sulphides, especially iron-bearing sulphides.
Granite	A common type of intrusive, felsic, igneous rock.
Gravity separation	The recovery of minerals utilising variances in specific gravity to separate the minerals (in this case non-magnetic hematite).
Greenschist facies	A low grade, low temperature regional metamorphism that results in a mineral assemblage typically containing chlorite, epidote and/or actinolite.
Greenstone belt	A broad term used to describe an elongate belt of rocks that have undergone regional metamorphism to greenschist facies.
Greywackes	A sandstone like rock, with grains derived from a dominantly volcanic origin.
Hangingwall	The mass of rock above a fault, vein or zone of mineralisation.
Hematite	A common iron ore, natural iron oxide that is reddish or brown in colour.
Hinge zone	A zone along a fold where the curvature is at a maximum.
Hydrothermal	A term applied to hot aqueous solution having temperatures up to 400° C which may transport metals and minerals in solution.
Igneous	A rock that has solidified from molten rock or magma.
Infill	Refers to sampling or drilling undertaken between pre-existing sample points.
In-situ	In the natural or original position.
Interflow	Refers to the occurrence of other rock types between individual lava flows within a stratigraphic sequence.
Integrated waste	
Intermediate	A rock unit which contains a mix of felsic and mafic minerals.
Intra-cratonic	Situated between or within cratons.
Intrusion/Intrusive	A body of igneous rock that invades older rock.
Ironstone	A rock formed by cemented iron oxides.
Joint venture	A business agreement between two or more commercial entities.

JORC	Joint Ore Reserves Committee (of the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia).
JORC Code	A code developed by the Australian Joint Ore Reserves Committee which sets minimum standards for public reporting of exploration results, mineral resources and ore reserves.
kg/m ³	Kilogram per cubic metre.
kg/t	Kilograms per tonne, a standard mass unit for demonstrating the concentration of uranium in a rock.
Kinematic	produced by motion.
Lacustrine	Lake environment.
Lag	Concentration of ferruginous material left after removal of soil fines by wind and water.
Laterite	A cemented residuum of weathering, generally leached in silica with a high alumina and/or iron content.
Leaching	Removal of elements from soil by their dissolution in water and moving downward in the ground.
Limonite	General term for mixtures of hydrated iron oxides and iron hydroxides.
Lineament	A significant linear feature of the Earth's crust, usually equating a major fault or shear structure.
Lithology	A term pertaining to the general characteristics of rocks.
Lode	A vein or other tabular mineral deposit with distinct boundaries.
M	Millions.
Mafic	A dark igneous rock composed dominantly of iron and magnesium minerals (such as basalt).magnetite A mineral comprising iron and oxygen which commonly exhibits magnetic properties.
Magnetic anomaly	Zone where the magnitude and orientation of the earth's magnetic field differs from adjacent areas.
Magnetite	A ferromagnetic mineral form of iron oxide (Fe ₂ O ₃).
Magnetometer	An instrument which measures the earth's magnetic field intensity.
Mass recovery	The percentage of mass recovered after processing.
Mesothermal	Hydrothermal deposit formed at intermediate temperatures (200-300° C).
Metabasalt	Metamorphosed basalt.
Metal recovery	The percentage of metal recovered after processing.
Metamorphism	Process by which changes are brought about to rock in the earth's crust by the agencies of heat, pressure and chemically active fluids.
Mineralisation	A geological concentration minerals or elements of prospective economic interest.
Mining recovery	The percentage of ore recovered during mining.
Mineral	A substance occurring naturally in the earth which may or not be of economic value.
Mineralised zone	Any mass of rock in which minerals of potential commercial value may occur.
Mineral Resource	A mineral inventory that has been classified to meet the JORC code standard.
Moisture content	Percentage of moisture in a rock mass.

Mottled zone	A layer that is marked with spots or blotches of different colour or shades of colour. The pattern of mottling and the size, abundance, and colour contrast of the mottles may vary considerably and should be specified in soil description.
Moz	Millions of ounces.
mRL	Metres reduced level, refers to the height of a point relative to a datum surface.
Mt	Million Tonnes.
Mullock	A rock which contains no gold or waste rock from which the gold has been extracted.
Mylonite	A hard compact rock with a streaky or banded structure produced by extreme granulation of the original rock mass in a fault or thrust zone.
OEM	Original equipment manufacturer.
Open pit	A mine working or excavation open to the surface.
OPEX	Operating expenditure.
Ore	Material that contains one or more minerals which can be recovered economically.
Ore Reserve	An ore reserve that has been classified to meet the JOR code standard.
Orogen	A belt of deformed rocks, usually comprising metamorphic and intrusive igneous rocks, mostly occurring along the collision zone between cratons.
Outcrops	Surface expression of underlying rocks.
Outlier	A limited area of younger rocks completely surrounded by older rocks.
Owner-Operator	An operating scenario in which the mine owner also owns the mining fleet and directly employs personnel to conduct mining operations.
Oxidized ore	Metalliferous minerals by which have been altered by weathering and partially or completely converted into oxides.
Palaeochannels	An ancient preserved stream or river.
Pallid clays	A relatively pale coloured clay-rich weathering horizon in a lateritic profile which is depleted in iron, usually by leaching.
Pedogenic	A product of soil processes.
Pegmatite	A very coarse grained intrusive igneous rock which commonly occurs in dyke-like bodies containing lithium-boron-fluorine-rare earth bearing minerals.
Pelites	Sedimentary rock composed of very fine clay or mud particles.
Percussion drilling	Drilling method of where rock is broken by the hammering action of a drill bit.
Pisolitic	Describes the prevalence of rounded manganese, iron or alumina-rich chemical concretions, frequently comprising the upper portions of a laterite profile.
Playa	Very flat, dry lake bed of hard, mud-cracked clay.
Pluton	A large body of intrusive igneous rock.
Polymictic	Referring to coarse sedimentary rocks, typically conglomerate, containing clasts of many different rock types.
Porphyries	Felsic intrusive or sub-volcanic rock with larger crystals set in a fine groundmass.
ppb	Parts per billion; a measure of low level concentration.
Production Drill Rig	A drill rig designed to drill production blastholes.

Pre-split Drill Rig	A drill rig designed to drill the holes around the edge of an open pit, in order to create a smoothly contoured wall profile.
Primary Loading	The excavation and loading of material from its insitu location in the open pit.
Proterozoic	Geological eon that extended from 2.5 billion to 542 million years ago.
Pyrite, pyrrhotite	A common, pale bronze iron sulphide mineral.
Quartz	Mineral species composed of crystalline silica (SiO ₂).
RAB drilling	A relatively inexpensive and less accurate drilling technique (compared to RC drilling) involving the collection of sample returned by compressed air from outside the drill rods.
Radiometric	Geophysical technique measuring emission from radioactive isotopes.
Rafts	A relatively large block of foreign rock incorporated into an intrusive magma.
RC drilling	Reverse Circulation drilling, whereby rock chips are recovered by airflow returning inside the drill rods, rather than outside, thereby returning more reliable samples.
Reclamation	The process in which land disturbed by mining activities is reclaimed back to a beneficial land use.
Reconnaissance	An examination or survey of a region in reference to its general geological character.
Redox	The boundary between a reducing environment and an oxidising environment.
Regolith	General term for gravels, soils, alluvials, clays and other materials which cover the bedrock.
Reserves	The portion of a mineral deposit which could be economically extracted or produced at the time of the reserve determination. These are classified as either proven, probable or possible ore reserves based on the JORC code.
Resource	An occurrence of material of intrinsic economic interest in a form that provides reasonable prospects for eventual economic extraction. These are classified as Measured, Indicated or Inferred ore resources based on the JORC code.
Rock chip sampling	The collection of rock specimens for mineral analysis.
ROM Pad	The transfer area for ore from the mine to the processing plant.
Run of mine ore (ROM)	Ore in its state as extracted from the mine.
SMU	Service metre unit.
Saline	Salty.
Sandstone	Sedimentary rock comprising predominantly of sand.
Saprock	Zone of weathered rock preserved within the weathered profile.
Satellite imagery	The images produced by photography of the Earth's surface from satellites.
Schistose	Containing schistose (strongly foliated metamorphic rock).
Scree	The rubble composed of rocks that have formed down the slope of a hill or mountain by physical erosion.
Sedimentary	Rocks formed by the deposition of particles carried by air, water or ice.
Sericite	A white or pale apple green potassium mica, very common as an alteration product in metamorphic and hydrothermally altered rocks.

Serpentine	The main alteration product of olivines and pyroxenes.
Shale	Fine grained sedimentary rock with well-defined bedding planes.
Sheared	A zone in which rocks have been deformed primarily in a ductile manner in response to applied stress.
Silcrete	Superficial deposit formed by low temperature chemical processes associated with ground waters, and composed of fine grained, water-bearing minerals of silica.
Silicified	Rock into which silica has been introduced.
Sills	Sheets of igneous rock which is flat lying or has intruded parallel to stratigraphy.
Silts	Fine-grained sediments, with a grain size between those of sand and clay.
Soil sampling	The collection of soil specimens for mineral analysis.
Spot price	Current delivery price of a commodity traded in the spot market.
Strike	The bearing of a rock formation.
Stripping ratio	The ratio of waste material mined to ore mined.
Stratiform	The arrangement of mineral deposit in strata or layers.
Strike	Horizontal direction or trend of a geological structure.
Sulphide	A general term to cover minerals containing sulphur and commonly associated with mineralisation.
Supergene	Process of mineral enrichment produced by the chemical remobilisation of metals in an oxidised or transitional environment.
t	Tonne.
Tpa	Tonnes per annum.
Tailings	Material rejected from the plant after valuable minerals have been Recovered.
Tenements	Large tracts of land granted under lease to mining companies and prospectors by the government.
Ultramafic	Dark to very dark coloured igneous rocks composed mainly of mafic minerals.
Unconformably	Having the relation of uniformity to the underlying rocks; not succeeding the underlying strata in immediate order of age or parallel position.
Unconformity	Description of rock strata where the layers are interrupted, discontinuous.
Veins	A thin infill of a fissure or crack, commonly bearing quartz.
Vibracoring	Obtains sediment samples by vibrating a core barrel into the sediment.
Volcanogenic	Rocks having volcanic origin.
Wmt	Wet metric tonne.
Waste	Material which does not contain minerals of economic merit.
Wheel Loader	An excavating unit which has wheels rather than tracks.
Whittle	A mining software package which optimises the size of an open pit based on a set of physical and financial input parameters.
Zone of oxidisation	The upper region of a mineral deposit which has undergone oxidisation.

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