

# PROSPECTUS Manuka Resources Ltd ACN 611 963 225





**IMPORTANT INFORMATION** This Prospectus is an important document and should be read in its entirety. If you do not understand any part of this Prospectus or if you are unsure whether to invest in the Shares being offered under this Prospectus it is recommended that you consult with your financial or other professional adviser without delay. The Shares the subject of this Prospectus are highly speculative.



# **CORPORATE DIRECTORY**

### Directors

Dennis Karp – Executive Chairman Nick Lindsay - Non-Executive Director Anthony McPaul – Non-Executive Director

Key Management Haydn Lynch – Chief Operating Officer David Power – Operations Manager

Joint Company Secretaries Dennis Wilkins Toni Gilholme

### **Registered Office**

Level 4, Grafton Bond Building, 201 Kent Street, Sydney. NSW. 2000. www.manukaresources.com.au

### Share Registry\*

Automic Group Pty Ltd Level 5, 126 Phillip Street, Sydney. NSW. 2000.

### Proposed Stock Exchange Listing

ASX Limited (ASX) Proposed ASX Code: MKR

# Lawyers

K&L Gates

Level 31, 1 O'Connell Street, Sydney. NSW. 2000.

### Auditor\*

Grant Thornton Audit Pty Ltd Level 17, 383 Kent Street, Sydney. NSW. 2000.

### **Investigating Accountant**

Grant Thornton Corporate Finance Pty Ltd Level 17, 383 Kent Street, Sydney. NSW. 2000.

### **Independent Technical Expert**

Mining Associates Pty Ltd Level 13, 445 Upper Edward Street, Spring Hill. QLD. 4004.

### Broker

Bell Potter Securities Limited Level 38, 88 Phillip Street, Sydney. NSW. 2000.

### **Corporate Adviser**

DW Corporate Pty Ltd Ground Floor, 20 Kings Park Road, West Perth. WA. 6005.

\* These entities are included for information purposes only. They have not been involved in the preparation of this Prospectus.

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# **IMPORTANT NOTICES**

# 1. Offer

This Prospectus was prepared and issued by Manuka Resources Limited ACN 611 963 225 (**Company**) in accordance with Chapter 6D of the *Corporations Act 2001* (Cth) (**Corporations Act**). Both offers contained in this Prospectus (together, the **Offer**) constitute invitations to apply for new fully paid ordinary shares in the Company (**Shares**).

# 2. Lodgement

This Prospectus is dated 22 May 2020 (**Prospectus Date**) and was lodged with the Australian Securities and Investments Commission (**ASIC**) on that date. The Company will apply to ASX Limited (**ASX**) within seven (7) days after the Prospectus Date for admission of the Company to the official list of and for quotation of its Shares on ASX.

# 3. No responsibility

Neither ASIC nor ASX (or either of their respective officers) take any responsibility for the contents of this Prospectus or the merits of the investment to which this Prospectus relates. Furthermore, none of the Company, the Share Registry or the Broker accept any liability, whether in negligence or otherwise, to persons who trade Shares before receiving their holding statements.

# 4. Expiry Date

This Prospectus expires on 22 June 2021 (**Expiry Date**) being the date which is 13 months after the Prospectus Date. No Shares will be issued under this Prospectus after the Expiry Date.

### 5. Not investment advice

The information contained in this Prospectus is not investment or financial product advice and does not take into account your investment objectives, financial circumstances, tax position or particular needs. This Prospectus should not be construed as financial, taxation, legal or other advice. It is important that you read this Prospectus carefully and in its entirety before deciding whether to invest in the Company (that is, by applying for Shares under this Prospectus). There are risks associated with an investment in the Shares and the Shares being offered under this Prospectus should be regarded as highly speculative.

In particular, you should consider the risk factors that could affect the performance of the Company and other information in this Prospectus. You should carefully consider these risks in the light of your personal circumstances (including your investment objectives, financial circumstances and tax position) and seek professional guidance from your stockbroker, accountant, lawyer or other professional adviser before deciding whether to invest in the Company. Some of the key risk factors that should be considered by prospective investors are set out in Section 7. There may be risk factors in addition to the risks set out in Section 7 that should also be considered by you in the light of your personal circumstances.

You should also consider the assumptions underlying the Financial Information and the risk factors that could affect the Company's business, financial condition and results of operations. No person named in this Prospectus, nor any other person, warrants or guarantees the performance of the Company or the repayment of capital by the Company or any return on any investment made pursuant to this Prospectus.

No person is authorised to give any information or to make any representation in connection with the Offer which is not contained in this Prospectus. Any information or representation not so contained may not be relied upon as having been authorised by the Company, the Broker or any other person in connection with the Offer. You should rely only on the information contained in this Prospectus when deciding whether to invest in the Company.

# 6. Financial information presentation

Section 4 sets out in detail the Financial Information referred to in this Prospectus and the basis of preparation of that information.

The Financial Information included in Section 4 has been prepared in accordance with the recognition and measurement principles prescribed in the Australian Accounting Standards (including the Australian Accounting Interpretations) issued by the Australian Accounting Standards Board (**AASB**) which are consistent with the International Financial Reporting Standards (**IFRS**) and Interpretations issued by the International Accounting Standards Board (**IASB**).

All financial amounts contained in this Prospectus are expressed in Australian currency and are rounded to the nearest \$1.00 (unless otherwise stated). Any discrepancies between totals and sums of components in tables and figures contained in this Prospectus are due to rounding. Tables and figures contained in this Prospectus have not necessarily been amended by the Company to correct immaterial summation differences that may arise from this rounding convention.

The Financial Information in this Prospectus should be read in conjunction with, and is qualified by reference to, the Investigating Accountant's Report in Section 5 (**Investigating Accountant's Report**). Where Financial Information and metrics represent pro forma amounts, they have been labelled as such.

### 7. Financial forecasts

Given the fact that the Company is in a relatively early stage of development (and is in an industry which is subject to a wide range of variables (any of which might affect the Company's financial condition)), there are significant inherent uncertainties associated with forecasting the future revenues and expenses of the Company. On this basis (and other than as set out in Section 2.5), the Directors believe that there is no reasonable basis for the inclusion of financial forecasts in the Prospectus.

### 8. Forward looking statements

This Prospectus contains forward looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'expects', 'intends', 'considers' and includes statements of current intentions, statements of opinion and predictions as to future events as well as other similar words that involve known or unknown risks and uncertainties. You should be aware that any such statements are not statements of fact and as such there can be no certainty of outcome in relation to the matters to which those forward looking statements relate.

Forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause actual events, performance or outcomes to differ materially from the events, performance or outcomes expressed or anticipated in these statements, many of which are beyond the control of the Company and the Directors. Such forward looking statements are based on an assessment of present economic and operating conditions and a number of best estimate assumptions regarding future events and actions that, as at the Prospectus Date, are expected to take place. The forward looking statements should be read in conjunction with, and are qualified by reference to, the risk factors set out in Section 7 and other information contained in this Prospectus.

The Directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward looking statements contained in this Prospectus will actually occur and investors are cautioned not to place undue reliance on such forward looking statements. Except where required by law, the Company does not intend to update or revise any forward looking statement, regardless of whether new information, future events or any other factors affect the information contained in this Prospectus.

This Prospectus uses market data and third party estimates and projections. The Company has obtained significant portions of this information from market research prepared by third parties. There is no assurance that any of the third party estimates or projections contained in this information will be achieved. The Company has not independently verified this information. Estimates and projections involve risks and uncertainties and are subject to change based on various factors, including those risk factors set out in Section 7.

# 9. Statements of past performance

This Prospectus includes information regarding past performance of the Company. Investors should be aware that past performance is not, and should not be relied upon as being, indicative of future performance.

### 10. Broker Disclaimer

Bell Potter Securities Limited ACN 006 390 772 (**Broker**) is acting as Broker to the General Public Offer. The Broker has not authorised, permitted or caused the issue or lodgement, submission, despatch or provision of this Prospectus and there is no statement in this Prospectus which is based on any statement made by the Broker or by any of its affiliates, officers or employees. To the maximum extent permitted by law, the Broker and its affiliates, officers, employees and advisers expressly disclaim all liability in respect of, and make no representations regarding, and take no responsibility for, any part of this Prospectus other than references to their own name and make no representation or warranty as to the currency, accuracy, reliability or completeness of this Prospectus.

### 11. No offering where it would be illegal to do so

This Prospectus does not constitute an offer or invitation to apply for Shares in any place in which, or to any person to whom, it would not be lawful to make such offer or invitation. No action has been taken to register or qualify the Shares or the Offer, or to otherwise permit a public offering of the Shares, in any jurisdiction other than Australia. The distribution of this Prospectus outside of Australia may be restricted by law and persons who come into possession of this Prospectus outside of Australia should seek advice and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

This Prospectus has been prepared in accordance with the relevant corporate laws of Australia and may not be distributed to, or relied upon by, any person in the United States. The Shares have not been, and will not be, registered under the United States Securities Act of 1933, as amended (**US Securities Act**), or the securities laws of any state or other jurisdiction of the United States, and may not be offered or sold, directly or indirectly, in the United States or to, or for the account or benefit of a US person, unless an exemption from the registration requirements of the US Securities Act (and, if applicable, US state securities laws) is available.

### 12. Exposure Period

The Corporations Act prohibits the Company from processing Applications in the seven (7) day period after the Prospectus Date (**Exposure Period**). ASIC may extend this period by up to a further seven (7) days (that is, up to a total of 14 days). The purpose of the Exposure Period is to enable this Prospectus to be examined by market participants (including ASIC) prior to the processing of Applications. Applications received during the Exposure Period will not be processed by the Company until after the conclusion of the Exposure Period and nor will any such Applicant receive any preference.

### 13. Prospectus availability

During the Offer Period, a paper copy of this Prospectus will be available free of charge to prospective Australian resident investors by calling the Manuka Resources IPO Information Line on 1300 288 664 from 9am to 5pm (Sydney time), Monday to Friday (excluding public holidays). This Prospectus is also available prospective to Australian resident investors in electronic form at https://investor.automic.com.au/#/ipo/manukaresources. Persons who access the electronic version of this Prospectus must ensure that they download and read the entire Prospectus. A printed copy of the Prospectus must not be provided to any person outside of Australia (subject to the requirements set out in Section 1.18).

### 14. Applications

Applications may only be made during the Offer Period in respect of either component of the Offer (that is, either the General Public Offer or the Conversion Share Offer) by completing the applicable Application Form attached to, or accompanying, this Prospectus in its paper form, or in its electronic form, which must be downloaded in its entirety from <a href="https://investor.automic.com.au/#/ipo/manukaresources">https://investor.automic.com.au/#/ipo/manukaresources</a>. By making an Application, you represent and warrant that you were given access to the Prospectus, together with the applicable Application Form. The Corporations Act prohibits any person from passing on to another person the Application Form unless it is attached to, or accompanied by, the complete and unaltered version of this Prospectus.

### 15. Offer management

The General Public Offer is being arranged and managed by the Broker.

# 16.No cooling-off rights

Cooling-off rights do not apply to an investment in the Shares offered under this Prospectus. This means that, in most circumstances, you cannot withdraw your Application (regardless of whether you have applied for Shares under the General Public Offer or the Conversion Share Offer) once it has been accepted by the Company.

# 17. Privacy

By completing an Application Form to apply for Shares, you are providing personal information to the Company and the Share Registry, which is contracted by the Company to manage Applications. The Company and the Share Registry on its behalf, may collect, hold and use that personal information in order to process your Application, service your needs as a Shareholder, provide facilities and services that you request and carry out appropriate administration. Some of this personal information is collected as required or authorised by certain laws including the *Income Tax Assessment Act 1997* (Cth) and the Corporations Act. If you do not provide the information requested in the Application Form, the Company and the Share Registry may not be able to process or accept your Application.

Your personal information may also be used from time to time to inform you about other products and services offered by the Company that it considers may be of interest to you. Your personal information may also be provided to the Company's agents and service providers on the basis that they deal with such information in accordance with applicable laws. The agents and service providers of the Company may be located outside Australia where your personal information may not receive the same level of protection as afforded under Australian law. The types of agents and service providers that may be provided with your personal information and the circumstances in which your personal information may be shared include:

- the Share Registry for ongoing administration of the register of members;
- printers and other companies for the purpose of preparation and distribution of statements and for handling mail;
- market research companies for the purpose of analysing the shareholder base and for product development and planning; and
- legal and accounting firms, auditors, contractors, consultants and other advisers for the purpose of administering, and advising on, the Shares and for associated actions.

The information contained in the Company's register of members must remain there even if a person ceases to be a Shareholder. Information contained in the Company's register of members is also used to facilitate dividend payments (if applicable) and corporate communications (including financial results, annual reports and other information that the Company may wish to communicate to its Shareholders) and compliance by the Company with legal and regulatory requirements. An Applicant has the right to access and correct the information that the Company and the Share Registry hold about that person, subject to certain exemptions under law.

# 18. Photographs and diagrams

Photographs and diagrams used in this Prospectus that do not have descriptions are for illustration only and should not be interpreted to mean that any person shown in them endorses this Prospectus or its contents or that the assets shown in them are owned by the Company. Diagrams used in this Prospectus are illustrative only and may not be drawn to scale. Unless otherwise stated, all data contained in charts, graphs and tables is based on information available at the Prospectus Date.

### 19. Definitions

Unless otherwise defined in the body of this Prospectus, capitalised terms in this Prospectus have the meanings given to them in the Glossary in Section 10. All references to time in this Prospectus relate to the time in Sydney, New South Wales.

### Questions

During the Offer Period, a paper copy of this Prospectus will be available free of charge to prospective Australian resident investors by calling the Manuka Resources IPO Information Line on 1300 288 664 from 9am to 5pm (Sydney time), Monday to Friday (excluding public holidays). Instructions on how to apply for Shares are set out in Section 1.12 and (if applicable to you, Section 1.13) and on the Application Form.

If you have any questions about whether to invest in the Company, you should seek advice from your stockbroker, accountant, lawyer or other professional adviser without delay.

### This Prospectus is important and should be read in its entirety.

# LETTER FROM THE CHAIRMAN

Dear Investor,

On behalf of the directors (**Directors**) and management of Manuka Resources Limited ACN 611 963 225 (**Manuka** or the **Company**), I am delighted to be able to present you with this Prospectus and to invite you to consider becoming a Shareholder in the Company.

The Company is the owner of the Wonawinta silver project (**Wonawinta Silver Project**) and is also the owner of Mt Boppy Resources Pty Ltd ACN 611 963 216 (**Mt Boppy Resources**), the entity which holds the Mt Boppy gold project (**Mt Boppy Gold Project**). Both of the Company's projects are located near Cobar in central New South Wales, Australia.

The Company has to this point in time secured sufficient funding to take it through to production, which commenced in April 2020. During the month of April 2020, Manuka produced over 800 oz Au (in carbon). Furthermore, the Company is also currently in the process of commissioning a modular elution circuit which will allow it to produce gold doré onsite at the Wonawinta Silver Project.

The Wonawinta Silver Project comprises of a granted mining lease, a 52 million ounce (**Moz**) JORCcompliant silver Mineral Resource, a 920 km<sub>2</sub> portfolio of highly prospective exploration tenements and a substantial processing plant with annual processing capacity of up to approximately 850,000 tonnes (**Wonawinta Processing Plant**).

Since the acquisition of the Wonawinta Silver Project in August 2016, the Company has:

- (a) commissioned various technical reports and studies concerning accessibility, climate, infrastructure and mineralisation, including a study to redefine its existing silver Mineral Resource;
- (b) identified near term revenue opportunities, including by processing the existing approximately 500,000 tonnes of silver oxide stockpiles on the Wonawinta Silver Project run of mine (**ROM**);
- (c) reviewed the history of the Wonawinta Processing Plant to determine previous operational shortcomings and, following that review, designed a comprehensive plant refurbishment program;
- (d) worked closely with the EPA to rectify any legacy environmental issues associated with the previous owners and achieved the lifting of all environmental licence suspensions in October 2018; and
- (e) completed a full refurbishment program on the Wonawinta Processing Plant returning it to a state of operational readiness in the first quarter of 2020.

In addition, in June 2019, Manuka completed the purchase of Mt Boppy Resources, which included mining leases and exploration licences covering an area in excess of approximately 210 km<sub>2</sub>, a 40 person mine camp and the historically significant open pit Mt Boppy Gold Mine<sub>1</sub>. The Mt Boppy Gold Project has a JORC-compliant Reserve of 320,000t at 3.0 g/t for 31,000 oz Au<sub>2</sub>.

In April 2020, the Company began processing stockpiled Mt Boppy gold ore at the Wonawinta Processing Plant and is also currently processing gold loaded carbon offsite at a third party facility. This offsite carbon processing will cease following the commissioning of the Company's modular elution circuit referred to above as all processing will then be able to take place onsite at the Wonawinta Silver Project.

Over the short to medium-term, the Company plans to conduct the following three (3) phases of activity:

(a) **Phase 1**: continue processing stockpiled and mined Mt Boppy gold ore for the next (approximately) 12 months with the intention of recovering up to approximately 22,000 to 24,000 oz Au;

<sup>1</sup> The Mt Boppy Gold Mine has operated sporadically since 1895. Since this time, the Mt Boppy Gold Mine has produced approximately 500,000 oz Au at an average grade of approximately 15 g/t. See section 6.1.2 of the Independent Technical Report for further information.

<sup>2</sup> See section 15 of the Independent Technical Report for further information.

- (b) **Phase 2**: begin processing the silver oxide stockpiles at the Wonawinta Silver Project. The Company intends to start this second phase of activity in the second quarter of 2021; and
- (c) **Phase 3:** begin the mining and processing of the shallow silver oxide resource at the Wonawinta Silver Project. The Company intends to start this third phase of activity in the first quarter of 2022.

Concurrently with Phase 1, the Company also intends to:

- (a) conduct an infill drilling program at the Wonawinta Silver Project and to conduct mine planning studies on the existing shallow (<60m) oxide Resource;
- (b) commence drilling certain high conviction targets on the Mt Boppy Gold Project, including in areas comprising of a number of underexplored brownfield opportunities; and
- (C) commence drilling activities on certain other high conviction targets on the Company's extensive and prospective exploration portfolio.

Under the General Public Offer, the Company is seeking gross proceeds of a minimum of \$5.0 million (**Minimum Subscription**) with the ability to accept oversubscriptions of up to a further \$2.0 million to raise a total of \$7.0 million (**Maximum Subscription**). The gross proceeds raised under the General Public Offer will be used by the Company for the following purposes:

- to fund infill drilling and exploration programs at both the Mt Boppy Gold Project and the Wonawinta Silver Project3;
- to pay outstanding interest on the Convertible Notes (each of which is expected to be converted pursuant to the Conversion Share Offer);
- for working capital purposes; and
- to pay the costs of the Offer.

In addition to the General Public Offer, the Company is also making the Conversion Share Offer to each eligible individual holder of the Company's Convertible Notes<sub>4</sub>.

This Prospectus contains detailed information about the Company, its business and the Offer, as well as the key risks associated with an investment in the Shares (as to which, see Section 7), and I encourage you to read it carefully<sub>5</sub>.

On behalf of the Board, I look forward to welcoming you as a Shareholder of the Company.

Yours faithfully

Dennis Karp Executive Chairman

3 See sections 9 and 24 of the Independent Technical Report for further information.

4 Once issued (and because they will technically be issued under the Prospectus), all Shares issued on conversion of the Convertible Notes will be free from the 12 month on sale restriction in section 707(3) of the Corporations Act. No capital is being raised by the Company under the Conversion Share Offer.

5 The key risks related to an investment in the Company include various operational risks associated with the ongoing and proposed processing of gold ore and/or silver oxide material (either onsite or by the Company's contractors), precious metals and input price volatility and risks associated with the Company's significant financial indebtedness. Investors should consider those risks carefully in deciding whether to invest in the Company.

# **KEY OFFER INFORMATION**

# Key Offer Dates - Indicative Timetable

Prospectus lodged with ASIC	Friday, 22 May 2020
Exposure Period begins	Monday, 25 May 2020
Exposure Period ends	Monday, 8 June 2020
Opening Date	9am (Sydney time) on Tuesday, 9 June 2020
Closing Date	5pm (Sydney time) on Tuesday, 23 June 2020
Issue of Shares under the Offer	Wednesday, 8 July 2020
Despatch of holding statements	Thursday, 9 July 2020
Company admitted to the Official List	Monday, 13 July 2020
Commencement of Official Quotation in Shares6	Tuesday, 14 July 2020

### Notes

The dates referred to above are indicative only and may change. Unless indicated otherwise, all dates are Sydney, Australia time. The Company (in consultation with the Broker) reserves the right to vary the dates of the Offer (or the dates associated with either component of the Offer), including, subject to the ASX Listing Rules, the Corporations Act and any other applicable law, to close the Offer early, to extend the Offer, to accept late Applications (either generally or in particular cases) or to withdraw the Offer before completion of the Offer without notice.

If the General Public Offer is withdrawn7 before the issue of the Shares the subject of that component of the Offer, then all Application Monies received in respect of the General Public Offer will be refunded in full (without interest) as soon as practical in accordance with the requirements of the Corporations Act. Applicants are encouraged to submit their Application Form as soon as possible after the Offer opens. No cooling-off rights apply to either component of the Offer. The admission of the Company to the Official List and the quotation and commencement of trading in Shares is subject to confirmation from ASX.

6 Any Share that is subject to ASX-imposed escrow arrangements will not be "quoted" on ASX until after the conclusion of the escrow period applicable to that Share.

<sup>7</sup> The Conversion Share Offer will be automatically withdrawn if the General Public Offer is withdrawn by the Company.

# **Key Offer Details**

	Minimum Subscription	Maximum Subscription
Issue Price under the General Public Offer	\$0.20 per Share	\$0.20 per Share
"Effective" Issue Price under the Conversion Share Offer8	\$0.1519 per Share	\$0.1519 per Share
Gross proceeds raised under the General Public Offer9	\$5.0 million	\$7.0 million
Gross proceeds raised under the Conversion Share Offer	N/A	N/A
Number of Shares on issue as at the Prospectus Date	193,087,960	193,087,960
Number of Shares expected to be issued under the General Public Offer	25,000,000	35,000,000
Number of Shares expected to be issued under the Conversion Share Offer	21,265,752	21,265,752
Total number of Shares on issue on completion of the Offer	239,353,712	249,353,712
Number of Convertible Notes expected to be on issue on completion of the Offer	Nil	Nil
Number of Options expected to be on issue on completion of the Offer <sub>10</sub>	21,250,000	21,250,000
Percentage of Shares held by Rescap Investments on Admission11	37.72%	36.20%
Indicative (approximate) market capitalisation of the Company on completion of the Offer	\$47.87 million	\$49.87 million

8 See "Summary of Offer" Section for further information.

9 See "Summary of Offer" Section for further information.

10 See Sections 1.1, 1.2, 1.3 and 1.8 for further information.

11 The Company expects that a significant proportion of the Shares held by Rescap Investments will be subject to ASX-imposed escrow for a period of 2 years from the date of Admission.

# INVESTMENT OVERVIEW

The information below is a selective overview only. Prospective investors should read this Prospectus in full before deciding whether to invest in any Shares the subject of the Offer.

Торіс	Summary	More Information	
A. Company and Busir	A. Company and Business Overview		
Who is the issuer of this Prospectus?	Manuka Resources Limited ACN 611 963 225 ( <b>Manuka</b> or the <b>Company</b> ).	Section 2.1	
	Manuka is an Australian public company which was incorporated in Victoria, Australia in April 2016.		
	Manuka is led by a highly competent Board and an experienced management team with a demonstrated track record in the mining and resources industry.		
What does the	The Company's key assets are:	Section 2	
Company own?	<ul> <li>7 granted mining titles and 1 granted exploration licence as part of the Mt Boppy Gold Project<sub>12</sub>;</li> </ul>		
	<ul> <li>1 mining lease (Wonawinta ML<sub>13</sub>) and 7 granted exploration licences (Wonawinta ELs) as part of the Wonawinta Silver Project;</li> </ul>		
	<ul> <li>accompanying mining infrastructure and gold ore stockpiles located at the Mt Boppy Gold Project, including:</li> </ul>		
	<ul> <li>a mining accommodation camp;</li> </ul>		
	$\circ$ a tailings storage facility; and		
	<ul> <li>approximately 60,00014 tonnes run of mill (ROM) gold ore stockpiles15 (which is currently being processed);</li> </ul>		
	<ul> <li>accompanying mining infrastructure and silver oxide stockpiles located at the Wonawinta Silver Project, including:</li> </ul>		
	<ul> <li>a mining accommodation camp;</li> </ul>		
	<ul> <li>a tailings storage facility;</li> </ul>		
	<ul> <li>the Wonawinta Processing Plant; and</li> </ul>		
	<ul> <li>approximately 500,000 tonnes ROM silver oxide stockpiles<sub>16</sub> which the Company is planning to process at the Wonawinta Processing Plant.</li> </ul>		
	The Company completed the acquisition of the Wonawinta Silver Project from the receivers of Black Oak in 2016 after an extensive due diligence period and completed the acquisition of the Mt Boppy Gold Project in June 2019.		
	The Company has commenced processing gold ore from the		

12 The Company's interest in the Mt Boppy Gold Project is held via the Company's wholly owned subsidiary Mt Boppy Resources.

13 The Wonawinta ELs and the Wonawinta ML are together referred to as the "Wonawinta Tenements". 14 Of which,

approximately 20,000 tonnes has, as at the Prospectus Date, been processed.

15 See sections 15 and 18 of the Independent Technical Report for further information.

16 See section 29 of the Independent Technical Report for further information.

		[]
	Mt Boppy Gold Project and plans to process this ore until all commercially recoverable gold ore stockpiled onsite and in the Mt Boppy pit has been fully depleted.	
Does the Mt Boppy Gold Project have a JORC-compliant Mineral Resource?	The Mt Boppy Gold Project has a JORC-compliant Mineral Resource of 444,000 tonnes @ 3.13 g/t Au (44,720 contained troy ounces of gold), of which 320,000 tonnes @ 3.0 g/t Au is in Reserve category.	Appendix B
Does the Wonawinta Silver Project have a JORC-compliant Mineral Resource?	The Wonawinta Silver Project has a JORC-compliant Mineral Resource of 38.8 million tonnes @ 42.0 g/t Ag (which equates to 52.4 million oz Ag contained).	Appendix B
What is the Company's strategy for the Mt Boppy Gold Project?	The Company's strategy for the Mt Boppy Gold Project initially focuses upon producing gold from the existing approximately 60,000t gold ore stockpiles and reserves in the pit of the historic Mt Boppy Gold Mine. The Company also intends to implement an exploration campaign on a number of its prospective targets within the Mt Boppy Gold Project with the objective of potentially finding additional high grade deposits.	Section 2.5
What is the Company's strategy for the Wonawinta Silver Project?	The Company intends to commence processing the silver oxide stockpiles at the Wonawinta Silver Project after it has finished processing and mining the existing Mt Boppy gold ores. The strategy for the Wonawinta Silver Project will be similar to that which has been adopted for the Mt Boppy Gold Project, in that the Company will start by processing the existing approximately 500,000t silver oxide stockpiles. The Company also intends to complete an infill drilling program and to commence mine planning on the silver Mineral Resource to potentially enable additional future production.	Section 2.5
How does the Company plan to progress its operations?	<ul> <li>Over the short to medium-term, the Company plans to conduct the following three (3) phases of operations:</li> <li>(d) Phase 1: continue processing Mt Boppy gold ore for approximately the next 12 months (with the intention of recovering up to approximately 22,000 to 24,000 oz Au);</li> <li>(e) Phase 2: begin processing the approximately 500,000t of silver oxide stockpiles at the Wonawinta Silver Project17; and</li> <li>(f) Phase 3: begin the mining and processing of the shallow silver oxide resource on the Wonawinta Silver Project18.</li> </ul>	Section 2.1
Why is the Company seeking to raise funds under the General Public Offer?	<ul> <li>The gross proceeds raised under the General Public Offer, expected to be between \$5.0 million and \$7.0 million, will be used by the Company:</li> <li>to fund exploration and infill drilling programs at both the Mt Boppy Gold Project and the Wonawinta Silver Project;</li> <li>to pay outstanding interest on the Convertible Notes (each of which is expected to be converted under the Conversion Share Offer);</li> </ul>	Section 1.6

17 The Company intends to start this second phase of operations in the second quarter of 2021. 18 The Company intends to start this third phase of operations in the first quarter of 2021.

	<ul> <li>for working capital purposes; and</li> </ul>	
	<ul> <li>to pay the costs of the Offer.</li> </ul>	
	• to pay the costs of the Oher.	
How much debt will the Company have on Admission?	On Admission, the Company is expected to have total consolidated debts of approximately \$24.66 million 19. This total debt is comprised of:	Sections 4.11, 8.1 and 8.2
	<ul> <li>a fully drawn US\$14.0 million<sub>20</sub> secured senior debt facility with TransAsia Private Capital Limited (a Hong Kong-based lender) (TransAsia) (Core Debt Facility<sub>21</sub>);</li> <li>a \$1.99 million unsecured working capital loan provided by ResCap Investments Pty Ltd ACN 119 061 522 (ResCap Investments<sub>22</sub>);</li> <li>a \$0.50 million unsecured working capital loan provided by Gleneagle Securities (Aust) Pty Ltd ACN 136 930 526 (Gleneagle Securities);</li> <li>a \$0.42 million unsecured working capital loan provided by Hindsight Trading Pty Ltd ACN 003 260 866 (Hindsight Trading); and</li> <li>a \$0.25 million unsecured working capital loan provided by National Australia Bank Limited (or one of its affiliate entities) (NAB).</li> </ul>	
What are the key terms of the Core Debt Facility?	The US\$14.0 million Core Debt Facility has a coupon rate of 14% per annum (with interest payable by the Company on a quarterly basis) and must be repaid in three (3) tranches of principal as detailed below and in Section 8.1.	Sections 4.11 and 8.1
When is the Company required to repay the outstanding principal under the Core Debt Facility due?	<ul> <li>Following Admission, the Company is required to repay the principal owing under the Core Debt Facility in the following manner:</li> <li>Repayment tranche 1: US\$2.5 million is due to be repaid on 5 October 2020;</li> </ul>	Sections 4.11 and 8.1
	<ul> <li>Repayment tranche 2: US\$5.0 million is due to be repaid on 3 February 2021; and</li> </ul>	
	<ul> <li>Repayment tranche 3: US\$6.5 million is due to be repaid on 5 April 2021.</li> </ul>	
	The Company is also required to repay the total outstanding balance owing under the Interim Debt Facility (ie of approximately \$2.17 million) on or before 11 June 2020. The Company expects that it will repay the Interim Debt Facility from operating cash flow before Admission.	
On what basis does the Company believe that it will be able to	During the first 12 months following Admission, the Company expects that it will be able to produce up to approximately 22,000 to 24,000 oz of gold by:	Sections 2, 4.11, 8.1 and 8.2

<sup>19</sup> As at the Prospectus Date, the Company has also drawn approximately \$2.17 million (including accrued interest) of the \$3.25 million available to it under a short-term secured senior debt facility that the Company has with T-A Investments Pty Ltd (an affiliate of TransAsia) (**T-A Investments**) (**Interim Debt Facility**). The Company must repay the Interim Debt Facility in full by no later than 11 June 2020.

20 Equivalent to approximately \$21.50 million based on an assumed AUD/USD exchange rate of approximately 0.65.

21 US\$2.5 million in outstanding principal under the Core Debt Facility is due for repayment by no later than 5 October 2020. See Sections 4.11 and 8.1 for further information.

22 ResCap Investments is controlled by Mr Dennis Karp, a Director of the Company.

repay all of its debts as and when they fall due during the first 12 months following Admission?	<ul> <li>continuing to truck gold-loaded carbon<sub>23</sub> for further processing at Como Carbon Services Pty Ltd's (Como Carbon Services) refinery in Perth, Western Australia; and</li> <li>utilising the Company's soon-to-be-commissioned modular elution circuit as soon as it has been commissioned to produce gold doré onsite at the Wonawinta Silver Project from the remainder of the Company's stockpiled gold bearing ore and easily recoverable reserves from the Mt Boppy Gold Project.</li> <li>It is on this basis that the Directors believe that the Company will be able to generate sufficient cash flow from operations to enable it to repay all of its debts as and when they fall due for repayment during the first 12 months following Admission, the most material of which are:         <ul> <li>tranche 1 under the Core Debt Facility of US\$2.5 million (due for repayment on 3 February 2021); and</li> <li>tranche 3 under the Core Debt Facility of US\$6.5 million (due for repayment on 5 April 2021).</li> </ul> </li> </ul>	
What are the key terms of the Company's working capital loans?	The key terms of the Company's working capital loans (including in relation to their interest rates and maturity dates) are set out in detail in Section 8.2. Each of these working capital loans are subordinated to the Core Debt Facility and the Interim Debt Facility and are repayable only after the Core Debt Facility and Interim Debt Facility have been repaid in full.	Sections 4.11 and 8.2
How will the Company report to Shareholders on the performance of its activities?	The Company will release information to Shareholders via the ASX Market Announcements Platform in accordance with its continuous and periodic disclosure obligations under the ASX Listing Rules. Further information regarding the Company will also be made available on the Company's website at www.manukaresources.com.au.	Section 9.9
Will the Company pay dividends?	The extent, timing and payment of any dividends in the future will be determined by the Directors based on a number of factors, including future earnings and the financial performance and position of the Company. The Company does not however expect to be in a position to be able to declare or pay dividends for the foreseeable future.	Section 2.8
B. Key Risks		
What are the key risks of investing in	Some of the key risks of investing in the Company are detailed below. The below list of risks is not exhaustive and further	Section 7

23 Until the Company's modular elution circuit has been commissioned (noting that the Company expects that its modular elution circuit will be commissioned and fully operational before Admission), stockpiled gold ore from the Mt Boppy Gold Project will continue to be trucked from the Mt Boppy Gold Project to the Wonawinta Processing Plant for processing with carbon in a process that converts that trucked gold ore into an intermediate stage gold-loaded carbon. That intermediate stage gold-loaded carbon will then be trucked from the Wonawinta Processing Plant to Como Carbon Services' refinery in Perth for further processing. As soon as the Company's modular elution circuit has been commissioned however, the Company will process all remaining gold ore and easily recoverable reserves from the Mt Boppy Gold Project onsite at the Wonawinta Processing Plant.

the Company?	details of these risks and other risks associated with an investment in the Company are described in Section 7.
	• Nature of mineral exploration and mining: The business of mineral exploration, development and production is subject to a number of material risks. The success of the Company's business depends, amongst other things, on successful exploration and/or acquisition of reserves, securing and maintaining title to tenements and consents, successful design, construction, commissioning and operation of mining and processing facilities, successful development and production in accordance with expectation and successful management of the operations. Exploration and mining are speculative undertakings which may be hampered by force majeure events, land claims and unforeseen mining and/or mechanical problems. Increased costs, lower output or high operating costs may all contribute to make a project less profitable than expected at the time of the development decision. There is no assurance that the Company's current or planned processing activities will continue or commence, as applicable, as expected.
	• <b>Operational risks</b> : The operations of the Company may be affected by various factors many of which are beyond the control of the Company, including failure to locate or identify additional mineral deposits, failure to achieve predicted grades in exploration or mining, operational and technical difficulties encountered in mining, difficulties in commissioning and/or operating plant and equipment (including either the Wonawinta Processing Plant or the Company's soon-to-be-commissioned elution circuit), mechanical failure or plant breakdown, unanticipated metallurgical problems which may affect extraction costs, adverse weather conditions, industrial and environmental accidents, industrial disputes and unexpected shortages or increases in the costs of consumables, spare parts, plant and equipment, fire, explosions and other incidents beyond the control of the Company.
	• Financial obligations/indebtedness: The Company has committed itself to a number of debt facilities and taken on a number of separate working capital loans as described in Sections 4.11, 8.1 and 8.2. The Company manages its various financial obligations and total indebtedness by preparing detailed cash forecasts and monitoring actual cash flows. However, the Company's ability to service each of its financial obligations may be impaired by the occurrence of any number of factors (including the occurrence of any of the risk factors noted in this Prospectus) many of which are beyond the control of the Company. In such circumstances and if the Company were unable to obtain sufficient alternative funding, its creditors would be able to take any number of actions against the Company including potentially to exercise their security over the Company's assets which would likely have a material adverse effect on the Company's prospects and ability to continue as a going concern.
	• <b>Commodity price volatility:</b> As the Company's future revenues (if any) will primarily be derived from the sale of gold and silver, any future earnings will be closely related to the market price of gold and silver. Commodity prices fluctuate and are affected by numerous factors beyond

	the control of the Company. These factors include aggregate global supply and demand for gold and silver, forward selling of these precious metals by producers, and production cost levels in major precious metals producing regions. Moreover, precious metal prices are also affected by macroeconomic factors such as expectations regarding inflation and interest rates as well as general global economic conditions. Material changes in any one of these factors may have a materially adverse effect on the Company's financial condition and prospects as well as its ability to fund its business.	
•	<b>Currency volatility</b> : International prices of various commodities, including gold and silver, are denominated in U.S. dollars, whereas the income and expenditure of the Company are and will primarily be denominated in Australia dollars, consequently exposing the Company to fluctuations and volatility of the rate of exchange between the United States dollar and the Australian dollar as determined by the international markets.	
•	<b>Mineral Resource estimates and classification</b> : The Mineral Resource estimates for the Company's projects are estimates only and no assurances can be given that any particular level of recovery of gold and/or silver will in fact be realised. Mineral Resource estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which are valid when originally calculated may change significantly when new information or techniques become available. In addition, by their very nature, resource estimates are necessarily imprecise and depend to some extent on interpretations, which may prove to be inaccurate.	
•	<b>Title risk</b> : The Company's mining and exploration activities are dependent upon the maintenance (including renewal) of the tenements in which the Company has or acquires an interest. Maintenance of the Company's tenements is dependent on, among other things, the Company's ability to meet the licence conditions imposed by relevant authorities including compliance with the Company's work program requirements which, in turn, is dependent on the Company being sufficiently funded to meet those expenditure requirements. Although the Company has no reason to believe that the tenements in which it currently has an interest in will not be renewed, there is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed by the relevant granting authority.	
•	<b>Environmental risk</b> : The Company's projects are subject to New South Wales and Federal Government regulations regarding environmental matters. The Governments and other authorities that administer and enforce environmental laws determine these requirements. As with all exploration projects and mining operations, the Company's activities are expected to have an impact on the environment. The cost and complexity of complying with the applicable environmental laws and regulations may prevent the Company from being able to develop potentially economically viable mineral deposits.	
•	<b>Exploitation, exploration and mining licence</b> : The Company's mining and exploration activities are	

	dependent upon the grant, or as the case may be, the maintenance of appropriate licenses, which may be	
	withdrawn or made subject to limitations and/or onerous conditions. The maintaining of licenses, obtaining renewals, or getting licenses granted often depends on the Company being successful in obtaining required statutory approvals for its proposed activities and that the licenses, tenements, leases, permits or consents it holds will be renewed as and when required. There is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed in connection therewith.	
	• <b>Key personnel</b> : The Company is reliant on a number of key personnel and consultants. The loss of one (1) or more of these key contributors could have a materially adverse impact on the Company. It may be difficult for the Company to attract and retain suitably qualified and experienced people, due to the relatively small size of the Company, compared with other industry participants.	
	• Pandemic and other public health risks: The ongoing outbreak of the coronavirus disease (COVID-19) and any other possible future outbreaks of contagious diseases may have a significant adverse impact on the Company's processing, exploration and administrative activities. The spread of such diseases amongst the Company's executives, employees, contractors, suppliers and logistic networks, as well as any quarantine and isolation requirements, may reduce the Company's ability to operate in an efficient manner (or at all) and may have materially adverse financial implications on the Company, including its ability to service its debts as and when they fall due.	
	• Liquidity Risk: On completion of the Offer, and even if the Offer is fully subscribed, the existing Shareholders of the Company will hold a large proportion of the Company's total issued Share capital. Furthermore and under Chapter 9 of the ASX Listing Rules, a number of these Shares will be subject to escrow periods which may cause reduced liquidity in the Company's unescrowed Shares, as some of these restricted Shares may not be traded for up to a period of 24 months from the date of Admission. Furthermore, there is no guarantee that there will be an ongoing liquid market for Shares. If illiquidity arises, there is a real risk that Shareholders will be unable to realise their investment in the Company.	
C. Summary of the Off	er	
What is the Offer?	The Offer comprises two (2) separate offers, being the:	Section 1.1
	<ul><li>General Public Offer; and</li><li>Conversion Share Offer.</li></ul>	
	The Company is making both components of the Offer under this Prospectus.	
What is the General Public Offer and what are its key terms?	The General Public Offer is an offer by the Company of between 25 million and 35 million new Shares at the Issue Price of \$0.20 per new Share to prospective investors with a registered address in Australia. The Company is seeking gross proceeds of between \$5.0 million and \$7.0 million under	Section 1.12

	the General Public Offer.	
What is the Conversion Share Offer and what are	The Conversion Share Offer is an offer under the Prospectus to all eligible existing Australian resident Noteholders to convert their Convertible Notes into new Shares.	Section 1.13
its key terms?	The conversion price for the new Shares that are expected to be issued by the Company under this component of the Offer is \$0.1519 per Share. This means that up to approximately 21,265,752 new Shares will be issued by the Company under the Conversion Share Offer.	
	No funds are being raised by the Company under the Conversion Share Offer. The new Shares the subject of the Conversion Share Offer will be issued on the Issue Date to each Noteholder that applies to convert their Convertible Notes into new Shares under the Conversion Share Offer.	
	The Conversion Share Offer is being made by the Company under the Prospectus to ensure that new Shares issued on conversion of the Convertible Notes are eligible, subject to the imposition of any ASX-imposed escrow restrictions, to be on sold on ASX within the first 12 months following their issue.	
	The Convertible Notes held by any Noteholder that is not eligible to have their Convertible Notes converted into Shares will be redeemed by the Company for cash <sub>24</sub> .	
What is the expected impact of the General Public Offer on the capital structure of the Company?	Depending on the outcome of the General Public Offer, the Company expects that its issued Share capital will increase by between 25,000,000 and 35,000,000 on completion of the General Public Offer.	Section 1.7
What is the effect of the Conversion Share Offer on the capital structure of the Company?	The 21,265,752 Shares expected to be issued by the Company under the Conversion Share Offer will, depending on the results of the General Public Offer, represent between 8.88% <sub>25</sub> and 8.53% <sub>26</sub> of the Company's total issued Share capital on completion of the Offer.	Section 1.7
	Immediately upon the issue of the new Shares the subject to the Conversion Share Offer to each applicable Noteholder, the Company's conversion and repayment obligations owed to those Noteholders will be extinguished.	
What is the minimum subscription under the General Public Offer?	The minimum subscription under the General Public Offer is 25 million new Shares to raise gross proceeds of \$5.0 million ( <b>Minimum Subscription</b> ).	Section 1.2
What is the maximum subscription under the General Public Offer?	The Company has reserved the right to accept up to an additional \$2.0 million worth of Applications (equivalent to a further 10 million new Shares) under the General Public Offer to raise a total of \$7.0 million (before costs) (Maximum Subscription).	Section 1.3

24 As at the Prospectus Date, the Company does not expect that any Noteholder will be ineligible to participate in the Conversion Share Offer.

25 Assumes Minimum Subscription is achieved. 26

Assumes Maximum Subscription is achieved.

Is the Offer underwritten?	Neither component of the Offer is being underwritten by the Broker. The Broker is, however, managing the General Public Offer.	Section 1.21
D. Directors and Relat	ed Party Interests and Arrangements	
Who are the Directors?	<ul> <li>The Directors are:</li> <li>Mr Dennis Karp: Executive Chairman;</li> <li>Mr Anthony McPaul: Non-Executive Director; and</li> <li>Dr Nick Lindsay: Non-Executive Director</li> </ul>	Section 3.1
What qualifications do the Directors have?	Mr Dennis Karp is a former commodities trader with over 35 years' of relevant industry experience. Over the past 10 years, Mr Karp has been involved in various resource project and investment opportunities involving precious and base metals and bulk commodities. Mr Karp holds a Bachelor of Commerce from the University of Cape Town.	Section 3.1
	Mr Anthony McPaul is a senior mining executive with over 35 years' experience in mining operations and mineral processing. Mr McPaul has worked in, and led, both open cut and underground operations and was most recently the general manager for Newcrest's Cadia Valley Operations in Orange NSW.	
	Dr Nick Lindsay is an experienced mining executive having had numerous technical and commercial roles with major and mid-tier companies. Dr Lindsay is a member of AusIMM and holds a Bachelor of Science (Honours) in Geology, a PhD in Metallurgy and Materials Engineering as well as a Master of Business Administration.	
What benefits are being paid to Directors?	The Directors are entitled to the following annual remuneration and fees (inclusive of superannuation or, in the case of Mr McPaul and Mr Lindsay, GST):	Sections 8.5 and 8.6
	• Mr Dennis Karp: \$262,800;	
	• Mr Anthony McPaul: \$45,000; and	
	• Dr Nick Lindsay: \$45,000.	
	The Directors have also been granted options (each of which is able to be exercised into 1 new Share) (each, an <b>Option</b> ) as follows:	
	• <b>Mr Dennis Karp</b> : 1,500,000 Options each with an exercise price of \$0.25 and an expiry date of 17 April 2023;	
	• <b>Mr Anthony McPaul</b> : 1,500,000 Options each with an exercise price of \$0.25 and an expiry date of 17 April 2023; and	
	• <b>Dr Nick Lindsay</b> : 1,500,000 Options each with an exercise price of \$0.25 and an expiry date of 17 April 2023.	
What contracts and/or arrangements	As at the Prospectus Date, the Company is a party to the following related party arrangements:	Sections 8 and 9
with related parties is the Company a party to?	• letters of appointment with each of its Directors on standard terms;	
	• deeds of indemnity, insurance and access with each of its Directors on standard terms; and	

	• a loan agreement with ResCap Investments as noted above and in Section 8.2.				
What interests do the Directors have in the securities of the	As at the Prospectus Date, the Directors (and/or their related bodies corporate) hold the following interests in the Company's securities:			Section 9.3	
Company?	Director	Shares	Options		
	Dennis Karp	90,357,03527	1,500,000		
	Anthony McPaul	Nil	1,500,000		
	Nick Lindsay	Nil	1,500,000		
	Prospectus Date) is as a result of his controlling interest in ResCap Investments <sub>28</sub> (which holds 30,583,174 Shares directly and 59,690,106 Shares indirectly via its wholly owned subsidiary ResCap Processing Projects Ltd ACN 611 741 014 ( <b>ResCap Processing</b> )), his controlling interest in Soothgrove Pty Ltd ACN 051 950 399 ( <b>Soothgrove</b> ) (which holds 52,114 Shares) and pursuant to his superannuation fund Pathold No. 53 Pty Ltd ACN 064 545 553 ( <b>Pathold</b> ) as trustee for the Dennis Karp Super Fund (which holds 31,641 Shares). Soothgrove is also expected to be issued with a further 92,146 Shares under the Conversion Share Offer.				
	Mr Karp <sub>29</sub> is also a director of Mt Boppy Resources however he receives no additional income for the provision of such services.				
	As noted elsewhere referred to in the tab \$0.25 per Share at a				
	Mr Justin Boylson, who resigned as a director of the Company on 17 March 2020 (and is therefore still a related party of the Company), was paid a total of \$31,400 (including superannuation) in Director's fees during the 2 years prior to the Prospectus Date. In addition, and also as at the Prospectus Date, Mr Boylson holds 1,500,000 Options (each exercisable into a Share at \$0.25 per Share at any time on or before 17 April 2023) and owns approximately 7.61% of ResCap Investments (as to which see Section 9.8). Mr Boylson is also a director of Mt Boppy Resources however he receives no income for the provision of such services.				
E. Applications and Ot	her Information			1	
Who is eligible to participate in the General Public Offer?	Only Australian resi General Public Offer.		to participate in the	Section 1.12	

27 As at the Prospectus Date, this equates to approximately 46.80% of the Shares.

28 Mr Karp is a director of and holds (via Soothgrove) 44.89% of ResCap Investments' shares.

29 Mr Karp is also a director of and holds 25% of the shares in Cockatoo Island Iron Ore Project Pty Ltd ACN 159 502 333 (Cockatoo Island), an entity which holds 1,036,287 Shares as at the Prospectus Date. Cockatoo Island is expected to be issued with a further 329,089 Shares under the Conversion Share Offer.

Who is eligible to participate in the Conversion Share	Only Australian resident Noteholders are eligible to participate in the Conversion Share Offer.	Section 1.13
Offer?		
How do I apply for Shares under the General Public Offer?	Eligible Applicants may apply for new Shares under the General Public Offer by completing the hard copy Application Form marked "General Public Offer" attached to or accompanying this Prospectus in accordance with the instructions set out on that Application Form.	Section 1.12
	Alternatively, eligible Applicants may apply for Shares under the General Public Offer by completing the online version of the Application Form in accordance with the instructions set out on that form. The online version of the General Public Offer Application Form is available at https://investor.automic.com.au/#/ipo/manukaresources.	
How do I apply Applicants under the General Public Offer pay their Application Monies?	Applicants under the General Public Offer may pay their Application Monies by cheque or bank draft or by BPAY® in each case in accordance with the instructions set out on the Application Form marked "General Public Offer".	Section 1.12
Monies ?	When completing your BPAY® payment, please ensure that you use the specific Biller Code and Customer Reference Number ( <b>CRN</b> ) generated on the online Application Form available at https://investor.automic.com.au/#/ipo/manukaresources.	
How do I apply for Shares under the Conversion Share Offer?	Each eligible Noteholder may apply for new Shares under the Conversion Share Offer by completing the Application Form marked "Conversion Share Offer" attached to or accompanying this Prospectus in accordance with the instructions on that Application Form.	Section 1.13
What is the allocation policy?	The Company has an absolute discretion in relation to the manner in which it will allocate Shares to eligible Applicants under the General Public Offer. No Applicant under the General Public Offer has any assurance of being allocated all or any Shares applied for.	Section 1.19
What is the cost of the Offer?	The expenses of the Offer are estimated to be between approximately \$918,500 (assuming a Minimum Subscription) and approximately \$1,040,500 (assuming a Maximum Subscription).	Section 9.7
F. Further Information		
How can I obtain further information?	If you have any questions about this Prospectus or how to apply for Shares, you should seek advice from your accountant, financial adviser, stockbroker, lawyer or other professional adviser without delay. Instructions on how to apply for Shares under the General Public Offer and the Conversion Share Offer are set out in Section 1.12 and Section 1.13, respectively. Alternatively, please contact the Manuka Resources IPO Information Line on 1300 288 664 from 9am to 5pm (Sydney time), Monday to Friday (excluding public holidays) during the Offer Period.	Corporate Directory

# 1. Details of the Offer

### 1.1 The Offer

This Prospectus invites prospective Australian<sup>30</sup> investors to apply, under the General Public Offer, for a minimum of 25,000,000 new Shares and a maximum of 35,000,000 new Shares, in each case, at an issue price of \$0.20 per new Share (**Issue Price**) to enable the Company to raise gross proceeds of between \$5.0 million and \$7.0 million.

This Prospectus also invites eligible existing Australian Noteholders to apply, under the Conversion Share Offer, for new Shares to be issued to them on conversion of their Convertible Notes. The conversion price for the new Shares that will be issued by the Company under the Conversion Share Offer is approximately \$0.1519 per new Share.

Once converted, the Company's conversion and repayment obligations owed to Noteholders will be extinguished. The Convertible Notes held by any Noteholder that is not eligible to have their Convertible Notes converted into new Shares will be redeemed by the Company for cash.<sub>31</sub>

As noted elsewhere in this Prospectus, no cash will be raised by the Company pursuant to the Conversion Share Offer. The Conversion Share Offer is being conducted to enable the up to approximately 21,265,752 Shares the subject of this component of the Offer to be free from the 12 month on sale restriction in section 707(3) of the Corporations Act.

All Shares offered under this Prospectus (and regardless of which component of the Offer they were applied for under) will rank equally with all existing Shares from the Issue Date. Refer to Section 9.1 for details of the rights attaching to Shares and to the "Key Offer Information" Section for details of the indicative Offer timetable.

The General Public Offer component of the Offer is being managed by the Broker.

Refer to Section 1.12 for further information on how to apply for Shares under the Offer.

### 1.2 Minimum Subscription

The minimum subscription under the General Public Offer is 25,000,000 Shares to raise \$5,000,000 (before costs) (**Minimum Subscription**).

None of the Shares offered under this Prospectus will be issued if the Minimum Subscription is not achieved.

Should the Minimum Subscription not be achieved within three (3) months from the Prospectus Date, all Application Monies will be returned to Applicants (without interest) as soon as is practicable.

### 1.3 Oversubscriptions

The Company has reserved the right to accept up to an additional \$2.0 million worth of Applications to raise a total of \$7.0 million (before costs) under the General Public Offer (**Maximum Subscription**). No subscriptions beyond this amount will be accepted by the Company. Application Monies received for more than your final allocation of Shares (only where the amount is \$2.00 or greater) will be refunded. No interest will be paid on any Application Monies received or refunded.

31 As at the Prospectus Date the Company does not expect that any Noteholder will be ineligible to participate in the Conversion Share Offer.

<sup>30</sup> Subject to the securities law requirements set out in Section 1.18, the Company may also accept Applications from select Qualified Investors outside of Australia.

### 1.4 **Objectives of the Company**

The Company's key medium term objectives are as follows:

- to achieve profitable steady state gold production from the gold ore stockpiles and easily recoverable reserves at the Mt Boppy Gold Project;
- to commence processing the Wonawinta silver oxide stockpiles and commercially viable resources at the Wonawinta Silver Project; and
- to conduct a detailed exploration program at both the Mt Boppy Gold Project and the Wonawinta Silver Project.

See section 9 of the Independent Technical Report for further information in relation to the Company's proposed exploration activities.

### 1.5 **Purpose of Prospectus**

The purpose of this Prospectus is to:

- enable the Company to raise gross proceeds of between \$5.0 million and \$7.0 million (a) under the General Public Offer to assist the Company to achieve the objectives noted in Section 2.5;
- enable the up to approximately 21,265,752 Shares the subject of the Conversion (b) Share Offer to be free from the 12 month on sale restriction in section 707(3) of the Corporations Act; and
- (C) assist the Company to satisfy the admission criteria in Chapters 1 and 2 of the ASX Listing Rules, as part of the Company's application for Admission.

### **Use of Funds** 1.6

The Directors believe that the funds raised from the General Public Offer will provide the Company with sufficient working capital to achieve the Company's stated objectives (as detailed in this Prospectus).

The following table shows the Company's expected use of funds in the 2 year period following Admission based on both the Minimum Subscription and the Maximum Subscription:

	Minimum	Maximum
	\$'000	\$'000
Sources of Funds		
Proceeds of the Offer	5,000	7,000
Expected cash balance at Offer date	2,376	2,376
Total Sources of Funds	7,376	9,376
Uses of Funds	·	·
Exploration and in-drilling activities	1,701	3,579
Interest on convertible notes	1,761	1,761
Unpaid cash costs of the Offer	831	965
Working capital	3,083	3,071
Total Uses of Funds	7,376	9,376

Prospective investors should note that the estimated expenditures detailed above are subject to modification by the Company on an ongoing basis depending on the progress of the Company's activities.

Due to market conditions and/or any number of other factors (including the risk factors outlined in Section 7), the Company's actual expenditure levels may vary significantly to the above estimates.

# 1.7 Capital Structure

On the basis that the Company completes the Offer in accordance with the terms in this Prospectus, the Company's equity capital structure on completion of the Offer is expected to be as follows:

	Shares (Minimum Subscription)	Shares (Maximum Subscription)	Convertible Notes	Options
On issue as at the Prospectus Date	193,087,960	193,087,960	3,231,000	16,413,043
Expected to be issued under the General Public Offer	25,000,000	35,000,000	N/A	N/A
To be issued under the Conversion Share Offer	21,265,752	21,265,752	N/A	N/A
To be issued to the Broker on completion of the Offer	Nil	Nil	Nil	10,000,000
Total on issue on completion of the Offer	239,353,712	249,353,712	Nil	21,250,000

Note:

- Pursuant to the Broker Engagement Letter, the Company has agreed to grant the Broker (or its nominee) with 10,000,000 Options on completion of the Offer. These Options are exercisable into new Shares at any time on or before the 3rd anniversary of the date of Admission at an exercise price of \$0.25 per Share.
- Other than the 10,000,000 Options that the Company is proposing to grant to the Broker on completion of the Offer (the key terms of which are set out above), all of the Options that the Company expects that it will have on issue on the date of Admission have an expiry date of 5pm (Sydney time) on 17 April 2023 and an exercise price of \$0.25 per Share.
- It is expected that a total of 5,163,043 Options will be cashed settled by the Company on or immediately prior to the Company's Admission for a total of approximately \$105,000 (thereby reducing the total number of Options that the Company will have on issue at that time by 5,163,043 (leaving the Company with a total of 21,250,000 Options on issue on Admission)).
- Immediately upon the issue of the new Shares the subject to the Conversion Share Offer to each applicable Noteholder, the Company's conversion and repayment obligations owed to those Noteholders will be extinguished (meaning that the Company will not have any Convertible Notes on issue on Admission).

# 1.8 Options

The Company expects that it will have the Options set out in the following table on issue on the date of Admission:

Name of Optionholder	Number held	Exercise price	Option expiry date <sub>32</sub>
Broker	10,000,000	\$0.25	5pm on the 3rd anniversary of the date of Admission
Hargreaves Singapore33	3,250,000	\$0.25	5pm on 17 April 2023
Mr Dennis Karp	1,500,000	\$0.25	5pm on 17 April 2023
Mr Anthony McPaul	1,500,000	\$0.25	5pm on 17 April 2023
Dr Nick Lindsay	1,500,000	\$0.25	5pm on 17 April 2023
Mr Justin Boylson	1,500,000	\$0.25	5pm on 17 April 2023
Mr Haydn Lynch	1,500,000	\$0.25	5pm on 17 April 2023
Ms Toni Gilholme	500,000	\$0.25	5pm on 17 April 2023
Total	<u>21,250,000</u>	N/A	N/A

# 1.9 Historical consolidated statement of profit and loss and other comprehensive income

The table below presents a summary of the audited/reviewed historical consolidated statement of profit and loss and other comprehensive income for FY2018, FY2019, 1HY20 and 1HY19. Further discussion regarding the summarised historical statement of profit and loss and other comprehensive income are set out in Section 4.

<sup>32</sup> All Options are "American-style" options meaning that they may be exercised by the holder at any time on or before the relevant expiry date.

<sup>33</sup> Hargreaves Singapore Pte Ltd.

	Audited	Audited	Reviewed	Reviewed
\$'000	Year ended 30 June 2018	Year ended 30 June 2019	Six months ended 31 December 2019	Six months ended 31 December 2018
Revenue	-	-	2	-
Operating costs	(1,212)	(1,080)	(650)	(348)
Employment costs	(613)	(289)	(646)	(143)
EBITDAX	(1,825)	(1,369)	(1,294)	(491)
Exploration expenditure	(593)	(370)	(301)	(359)
EBITDA before non- cash expense	(2,418)	(1,739)	(1,595)	(850)
Fair value adjustment	-	(1,533)	(289)	-
Share based payments	(334)	150	-	150
EBITDA	(2,752)	(3,142)	(1,884)	(700)
Depreciation	(35)	(30)	(18)	(15)
EBIT	(2,787)	(3,172)	(1,902)	(715)
Interest expense	(1,557)	(2,256)	(1,012)	(571)
Profit/(loss) before tax	(4,344)	(5,428)	(2,915)	(1,286)
Income tax expense	-	-	-	-
Profit/(loss) after tax	(4,344)	(5,428)	(2,915)	(1,286)

# 1.10 Pro forma statement of financial position

The table below sets out the summarised reviewed historical and pro forma consolidated statement of financial position as at 31 December 2019. Details of the pro forma consolidated statement of financial position, including the pro forma adjustments are set out in Section 4.

	Reviewed	Minimum	Maximum
As at 31 December 2019	\$'000	Pro forma \$'000	Pro forma \$'000
Total current assets	3,221	7,407	9,282
Total non-current assets	18,410	18,410	18,410
Total assets	21,631	25,817	27,692
Total current liabilities	12,272	5,896	5,896
Total non-current liabilities	25,337	24,470	24,470
Total liabilities	37,609	30,366	30,366
Net assets	(15,978)	(4,549)	(2,674)
Total equity	(15,978)	(4,549)	(2,674)

### 1.11 Forecasts

The Directors have considered the matters detailed in ASIC Regulatory Guide 170 titled "Prospective financial information" and believe that they do not have a reasonable basis to forecast future revenues or earnings on the basis that the operations of the Company are (and are expected to remain) inherently uncertain.

Given these inherent uncertainties the Directors consequently believe that (and other than as set out in Section 2.5), it is not possible for the Company to include reliable forecasts in this Prospectus. Refer to Section 2 for further information in respect to the Company's activities and Section 7 in respect of the Company's key risks.

### 1.12 General Public Offer Applications

The General Public Offer is open to all eligible Applicants with a registered address in Australia.

In order to apply for Shares under the General Public Offer please complete the hard copy Application Form marked "General Public Offer" attached to or accompanying this Prospectus (and return that completed Application Form to the Share Registry at the address provided below) or complete the online version of the Application Form available at https://investor.automic.com.au/#/ipo/manukaresources.

Eligible Applicants under the General Public Offer may pay their Application Monies by cheque, bank draft or by BPAY®.

In order to pay your Application Monies by cheque or bank draft, please complete the hard copy Application Form marked "General Public Offer" and return that completed hard copy Application Form and your cheque or bank draft for your Application Monies to the Share Registry at the address set out below:

Mailing address:	Hand delivery:
Manuka Resources Limited	Manuka Resources Limited
C/- Automic Group	C/- Automic Group
GPO Box 5193	Level 5, 126 Phillip Street
Sydney NSW 2001	Sydney NSW 2000

Please note that your cheque or bank draft must be (i) made payable to "**Manuka Resources Limited**", (ii) crossed "**Not Negotiable**", (iii) in Australian dollars and (iv) drawn at an Australian branch of an authorised financial institution.

Application Monies paid by cheque or bank draft must be received by the Share Registry by no later than 5pm (Sydney time) on the Closing Date.

Eligible Applicants under the General Public Offer who wish to pay their Application Monies by BPAY® must complete the online version of the Application Form available at <a href="https://investor.automic.com.au/#/ipo/manukaresources">https://investor.automic.com.au/#/ipo/manukaresources</a>. When completing your BPAY® payment, please ensure that you use the specific Biller Code and unique Customer Reference Number (**CRN**) provided to you or generated by the online version of the General Public Offer Application Form and confirmation email.

Application Monies paid by BPAY® must be received by the Share Registry by no later than 5pm (Sydney time) on the Closing Date.

For more information, eligible Applicants under the General Public Offer should refer to the Company's website <u>www.manukaresources.com.au</u> or call the Manuka Resources IPO Information Line on 1300 288 664 from 9am to 5pm (Sydney time), Monday to Friday (excluding public holidays).

By making an Application and paying your Application Monies (whether by cheque, bank draft or by BPAY®), you declare that you were given access to this Prospectus (and any supplementary or replacement prospectus), together with the Application Form marked "General Public Offer" which was attached to or which accompanied this Prospectus. The Corporations Act prohibits any person from passing on the Application Form to another person unless it is accompanied by a hard copy of this Prospectus or the complete and unaltered electronic version of this Prospectus.

The minimum Application under the General Public Offer is \$2,000 worth of Shares. There is no maximum value of Shares that may be applied for under the General Public Offer. However, the Company and Broker reserve the right to aggregate any Applications that are believed to be multiple Applications from the same person or reject or scale back any Applications (or aggregation of Applications) in the General Public Offer which are for more than \$250,000 worth of Shares. The Company and the Broker may determine a person to be eligible to participate in the General Public Offer and may amend or waive the General Public Offer Application procedures (or any of its requirements), in their discretion, in compliance with applicable laws.

The General Public Offer opens at 9am (Sydney time) on Tuesday, 9 June 2020 and closes at 5pm (Sydney time) on Tuesday, 23 June 2020. The Company in consultation with the Broker may elect to extend the General Public Offer, or accept late Applications either generally or in particular cases. The General Public Offer may be closed at any earlier date and time without further notice (subject to the ASX Listing Rules and the Corporations Act). Eligible Applicants are therefore encouraged to submit their Applications as soon as possible.

The Company reserves the right to decline any Application in whole or in part, without giving any reason. Application Monies received from eligible Applicants under the General Public Offer will be held in a special purpose bank account until the Shares the subject of the General Public Offer are issued to successful Applicants. Applicants under the General Public Offer whose Applications are not accepted, or who are allocated a lesser number of Shares than the amount applied for, will receive a refund, as applicable. Interest will not be paid on any monies refunded.

Applicants whose Applications are accepted in full will receive the whole number of Shares calculated by dividing the Application Monies received by the Issue Price. Where the Issue Price does not divide exactly into the Application Monies provided, the number of Shares to be allocated to the Applicant will be rounded down to the nearest whole Share. No refunds pursuant solely to rounding will be provided.

Interest will not be paid on any Application Monies refunded or any interest earned on Application Monies pending the allocation of Shares (or refund, as the case may be) will be retained by the Company.

You should ensure that sufficient funds are held in the relevant account to cover the amount of your cheque. If the amount of your Application Monies (whether provided by cheque, bank draft or BPAY®) is less than the amount specified on your Application Form, you will be taken to have applied for such lower dollar amount of Shares or your Application might be rejected.

The Company intends to process Applications received on a "first-in, first-served" basis, subject to the recommendations of the Broker. Accordingly, the Company encourages any eligible prospective investor who intends to apply for Shares under the General Public Offer to submit the Application Form marked "General Public Offer" and pay the requisite Application Monies as soon as possible (and in any event, before 5pm (Sydney time) on the Closing Date).

# 1.13 Conversion Share Offer Application

The Conversion Share Offer is an offer under this Prospectus to each Noteholder with a registered address in Australia to convert their Convertible Notes into new Shares at the conversion price of \$0.1519 per Share.

In order to apply for Shares under the Conversion Share Offer, each Noteholder must complete and return the Application Form marked "Conversion Share Offer" attached to or accompanying this Prospectus to the Share Register to the address set out below:

Mailing address:	Hand delivery:
Manuka Resources Limited	Manuka Resources Limited
C/- Automic Group	C/- Automic Group
GPO Box 5193	Level 5, 126 Phillip Street
Sydney NSW 2001	Sydney NSW 2000

The Conversion Share Offer Application Form must be completed in accordance with the instructions included on that Application Form.

No cash will be raised by the Company under the Conversion Share Offer. The Conversion Share Offer is being conducted to enable the Shares the subject of this component of the Offer to be free from the 12 month on sale restriction in section 707(3) of the Corporations Act.

By making an Application under the Conversion Share Offer you declare that you were given access to this Prospectus (and any supplementary or replacement prospectus), together with the Application Form marked "Conversion Share Offer" which was attached to or which accompanied this Prospectus. The Corporations Act prohibits any person from passing on the Application Form to another person unless it is accompanied by a hard copy of this Prospectus or the complete and unaltered electronic version of this Prospectus.

The Conversion Share Offer opens at 9am (Sydney time) on Tuesday, 9 June 2020 and closes at 5pm (Sydney time) on Tuesday, 23 June 2020. The Company may elect to extend the Conversion Share Offer if circumstances require. The Conversion Share Offer may be closed at any earlier date and time without further notice (subject to the ASX Listing Rules and the Corporations Act).

### 1.14 CHESS

The Company will apply to participate in ASX's "Clearing House Electronic Subregister System" (CHESS) and will comply with the ASX Listing Rules and ASX Settlement Operating Rules in relation to CHESS. CHESS is an electronic transfer and settlement system for transactions in securities quoted on ASX under which transactions are effected in electronic form.

When the Shares become "Approved Financial Products" (as that term is defined in the ASX Settlement Operating Rules), Shareholdings will be registered in one of two (2) subregisters, being either the CHESS subregister or the Company's "issuer sponsored" subregister. Together, these two (2) registers will comprise the Company's register of Shareholders.

For successful Applicants under the General Public Offer, as well as under the Conversion Share Offer, the Shares of any such Shareholder who is a participant in CHESS or is sponsored by a participant in CHESS will be registered on the CHESS subregister. All other Shares (and any other security of the Company) will be registered on the issuer sponsored subregister.

The Company expects that Shareholders will be sent holding statements (which will evidence the number of Shares allocated to them on completion of the Offer) within two (2) business days after the Issue Date. Holding statements will be mailed by standard post. Holding statements will also provide details of a Shareholder's Holder Identification Number (**HIN**) for (CHESS holders) or, where applicable, Shareholder Reference Number (**SRN**) for issuer sponsored holders. Shareholders will subsequently receive statements showing any changes to their Shareholding. Share certificates will not be issued by the Company.

Shareholders will receive subsequent statements during the first week of the following month if there has been a change to their Shareholding on the Company's register and as otherwise required by the ASX Listing Rules, ASX Settlement Operating Rules or the Corporations Act. Additional statements may also be requested at any other time either directly through the Shareholder's sponsoring broker (in the case of a holding on the CHESS subregister) or through the Share Registry in the case of a holding on the issuer sponsored subregister. The Company and the Share Register may charge a fee for providing a Shareholder with additional issuer sponsored statements.

# 1.15 ASX Listing and Official Quotation

The Company will apply to ASX within seven (7) days after the Prospectus Date for admission to the Official List and for Official Quotation of its Shares (including those Shares the Company expects to issue under the Offer, but excluding any Shares the Company expects will be classified by ASX as Restricted Securities).

If the Company is not admitted to the Official List, or if Official Quotation of its Shares is not granted by ASX, in either case, within 3 months after the Prospectus Date (or within such longer period as may be permitted by ASIC), no Shares the subject of this Prospectus will be issued. In such circumstances, all Application Monies will be refunded to Applicants (without interest) as soon as practicable.

ASX takes no responsibility for the contents of this Prospectus. The fact that ASX may admit the Company to the Official List or may grant Official Quotation to the Shares the subject of this Prospectus is not to be taken in any way as an indication of the merits of the Company or of the Shares.

### 1.16 Issuance of Shares

All Application Monies received by the Share Register on behalf of the Company will be held on trust for Applicants until the Shares the subject of the General Public Offer are issued. Any interest that accrues between the receipt of an Applicant's Application Monies and the Issue Date (or, if applicable, the date the Applicant's Application Monies (or part thereof) is returned to the Applicant) will be retained by the Company.

No Shares the subject of this Prospectus will be issued unless:

- (a) the Minimum Subscription is achieved (as to which, please refer to Section 1.2); and
- (b) ASX grants conditional approval for the Company to be admitted to the Official List (as to which, please refer to Section 1.15).

The Company reserves the right to reject any Application or to issue a lesser number of Shares to any Applicant than the number applied for by that Applicant. Where the number of Shares issued is less than the number applied for, the surplus Application Monies applicable to that Applicant will be refunded (without interest) as soon as reasonably practicable after the Closing Date.

All Shares that are being offered under the Offer are expected to be issued on the Issue Date. It is the responsibility of Applicants to determine their allocation of Shares prior to trading in the Shares. Applicants who sell Shares before they receive their holding statements do so at their own risk.

### 1.17 Risk Factors

Prospective investors should be aware that an investment in the Company is considered highly speculative and involves a number of risks (many of which are outside of the control of the Company) that are inherent to the Company's business activities. Section 7 details the key risk factors which prospective investors should be aware of. It is recommended that prospective investors consider these key risks carefully before deciding whether to invest in the Company. If you have any questions about the desirability of, or procedure for, investing in the Company's Shares contact your stockbroker, accountant or other independent adviser without delay.

# 1.18 Overseas Applicants

No action has been taken to register or qualify the Shares, or either component of the Offer, or otherwise to permit a public offering of Shares, in any jurisdiction other than Australia. The distribution of this Prospectus outside of Australia may be restricted by law. This Prospectus does not constitute an offer in any place in which, or to any person to whom, it would not be lawful to make such an offer. Persons into whose possession this Prospectus comes should inform themselves about and observe, any such restrictions. Any failure to comply with these restrictions may constitute a violation of those laws. The return of a duly completed Application Form will be taken by the Company to constitute a representation and warranty that there has been no breach of any such law and that all necessary approvals and consents have been obtained by the Applicant.

The Company may also accept Applications from Qualified Investors in jurisdictions outside of Australia subject to that investor being eligible to apply for Shares in the General Public Offer under the security laws of their home jurisdiction. The following foreign selling restrictions apply:

### Canada (British Columbia, Ontario and Quebec provinces)

This document constitutes an offering of Shares only in the Provinces of British Columbia, Ontario and Quebec (the **Provinces**) and to those persons to whom they may be lawfully distributed in the Provinces, and only by persons permitted to sell such Shares. This document is not, and under no circumstances is to be construed as, an advertisement or a public offering of securities in the Provinces. This document may only be distributed in the Provinces to persons that are "accredited investors" within the meaning of NI 45-106 Prospectus Exemptions, of the Canadian Securities Administrators.

No securities commission or similar authority in the Provinces has reviewed or in any way passed upon this document, the merits of the Shares the subject of the Offer or the offering of Shares and any representation to the contrary is an offence.

No prospectus has been, or will be, filed in the Provinces with respect to the offering of Shares or the resale of such securities. Any person in the Provinces lawfully participating in the offer will not receive the information, legal rights or protections that would be afforded had a prospectus been filed and receipted by the securities regulator in the applicable Province. Furthermore, any resale of Shares in the Provinces must be made in accordance with applicable Canadian securities laws which may require resales to be made in accordance with exemptions from dealer registration and prospectus requirements. These resale restrictions may in some circumstances apply to resales of Shares outside Canada and, as a result, Canadian purchasers should seek legal advice prior to any resale of Shares.

The Company as well as its directors and officers may be located outside Canada and, as a result, it may not be possible for purchasers to effect service of process within Canada upon the Company or its directors or officers. All or a substantial portion of the assets of the Company and such persons may be located outside Canada and, as a result, it may not be possible to satisfy a judgment against the Company or such persons in Canada or to enforce a judgment obtained in Canadian courts against the Company or such persons outside Canada.

Any financial information contained in this document has been prepared in accordance with Australian Accounting Standards and also comply with International Financial Reporting Standards and interpretations issued by the International Accounting Standards Board. Unless stated otherwise, all dollar amounts contained in this document are in Australian dollars.

### Statutory rights of action for damages and rescission

Securities legislation in certain of the Provinces may provide purchasers with, in addition to any other rights they may have at law, rights of rescission or to damages, or both, when an offering memorandum that is delivered to purchasers contains a misrepresentation. These rights and remedies must be exercised within prescribed time limits and are subject to the defences contained in applicable securities legislation. Prospective purchasers should refer to the applicable provisions of the securities legislation of their respective Province for the particulars of these rights or consult with a legal adviser.

The following is a summary of the statutory rights of rescission or to damages, or both, available to purchasers in Ontario. In Ontario, every purchaser of Shares purchased pursuant

to this document (other than (a) a "Canadian financial institution" or a "Schedule III bank" (each as defined in NI 45-106), (b) the Business Development Bank of Canada or (c) a subsidiary of any person referred to in (a) or (b) above, if the person owns all the voting securities of the subsidiary, except the voting securities required by law to be owned by the directors of that subsidiary) shall have a statutory right of action for damages and/or rescission against the Company if this document or any amendment thereto contains a misrepresentation. If a purchaser elects to exercise the right of action for rescission, the purchaser will have no right of action for damages against the Company. This right of action for rescission or damages is in addition to and without derogation from any other right the purchaser may have at law. In particular, Section 130.1 of the Securities Act (Ontario) provides that, if this document contains a misrepresentation, a purchaser who purchases Shares during the period of distribution shall be deemed to have relied on the misrepresentation if it was a misrepresentation at the time of purchase and has a right of action for damages or, alternatively, may elect to exercise a right of rescission against the Company, provided that (a) the Company will not be liable if it proves that the purchaser purchased Shares with knowledge of the misrepresentation; (b) in an action for damages, the Company is not liable for all or any portion of the damages that the Company proves does not represent the depreciation in value of Shares as a result of the misrepresentation relied upon; and (c) in no case shall the amount recoverable exceed the price at which Shares were offered.

Section 138 of the Securities Act (Ontario) provides that no action shall be commenced to enforce these rights more than (a) in the case of any action for rescission, 180 days after the date of the transaction that gave rise to the cause of action or (b) in the case of any action, other than an action for rescission, the earlier of (i) 180 days after the purchaser first had knowledge of the fact giving rise to the cause of action or (ii) three (3) years after the date of the transaction that gave rise to the cause of action. These rights are in addition to and not in derogation from any other right the purchaser may have.

Certain Canadian income tax considerations. Prospective purchasers of Shares should consult their own tax adviser with respect to any taxes payable in connection with the acquisition, holding or disposition of Shares as any discussion of taxation related matters in this document is not a comprehensive description and there are a number of substantive Canadian tax compliance requirements for investors in the Provinces.

Upon receipt of this document, each investor in Canada hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of Shares (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. Par la réception de ce document, chaque investisseur canadien confirme par les présentes a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation ou tout avis) soient rédigés en anglais seulement.

### European Union

This document has not been, and will not be, registered with or approved by any securities regulator in the European Union. Accordingly, this document may not be made available, nor may any Shares be offered for sale, in the European Union except in circumstances that do not require a prospectus under Article 1(4) of Regulation (EU) 2017/1129 of the European Parliament and the Council of the European Union (the **Prospectus Regulation**).

In accordance with Article 1(4)(a) of the Prospectus Regulation, an offer of Shares in the European Union is limited to persons who are "qualified investors" (as defined in Article 2(e) of the Prospectus Regulation).

### Hong Kong

WARNING: This document has not been, and will not be, registered as a prospectus under the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, nor has it been authorised by the Securities and Futures Commission in Hong Kong pursuant to the Securities and Futures Ordinance (Cap. 571) of the Laws of Hong Kong (the **SFO**). No action has been taken in Hong Kong to authorise or register this document or to permit the distribution of this document or any documents issued in connection with it. Accordingly, Shares have not been and will not be offered or sold in Hong Kong other than to "professional investors" (as defined in the SFO and any rules made under that ordinance).

No advertisement, invitation or document relating to Shares has been or will be issued, or has been or will be in the possession of any person for the purpose of issue, in Hong Kong or

elsewhere that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Shares that are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors. No person allotted Shares may sell, or offer to sell, such securities in circumstances that amount to an offer to the public in Hong Kong within six (6) months following the date of issue of such securities.

The contents of this document have not been reviewed by any Hong Kong regulatory authority. You are advised to exercise caution in relation to the offer. If you are in doubt about any contents of this document, you should obtain independent professional advice.

### New Zealand

This document has not been registered, filed with or approved by any New Zealand regulatory authority under the Financial Markets Conduct Act 2013 (the **FMC Act**). The Shares are not being offered or sold in New Zealand (or allotted with a view to being offered for sale in New Zealand) other than to a person who:

- is an investment business within the meaning of clause 37 of Schedule 1 of the FMC Act;
- meets the investment activity criteria specified in clause 38 of Schedule 1 of the FMC Act;
- is "large" within the meaning of clause 39 of Schedule 1 of the FMC Act;
- is a government agency within the meaning of clause 40 of Schedule 1 of the FMC Act; or
- is an eligible investor within the meaning of clause 41 of Schedule 1 of the FMC Act.

### United Kingdom

Neither this document nor any other document relating to the offer has been delivered for approval to the Financial Conduct Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended (**FSMA**)) has been published or is intended to be published in respect of the Shares the subject of the General Public Offer.

Shares may not be offered or sold in the United Kingdom by means of this document or any other document, except in circumstances that do not require the publication of a prospectus under section 86(1) of the FSMA. This document is issued on a confidential basis in the United Kingdom to "qualified investors" (within the meaning of Article 2(e) of the Prospectus Regulation (2017/1129/EU), replacing section 86(7) of the FSMA). This document may not be distributed or reproduced, in whole or in part, nor may its contents be disclosed by recipients, to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received in connection with the issue or sale of the Shares has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of the FSMA does not apply to the Company.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (FPO), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investments to which this document relates are available only to, and any offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

### **United States**

This document may not be distributed or released in the United States.

This document does not constitute an offer to sell, or a solicitation of an offer to buy, any securities in the United States or any other jurisdiction in which such an offer would be illegal.

The Shares to be offered and sold in the General Public Offer have not been, and will not be, registered under the U.S. Securities Act or the securities laws of any state or other jurisdiction of the United States. Accordingly, any Shares to be offered and sold in the General Public Offer may not be offered or sold in the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act and any other applicable U.S. state securities law. The Shares to be offered and sold in the General Public Offer may not be offered and sold to any person in the United States.

### 1.19 Allocation Policy

Subject to the Minimum Subscription being achieved, the Company retains an absolute discretion as to how it will allocate Shares to Applicants under the General Public Offer and reserves the right, in its absolute discretion, to issue an Applicant with a lesser number of Shares than the number of Shares that the Applicant applied for or to reject an Application Form. If the number of Shares issued to an Applicant is less than that the number of Shares that the Applicant's Application Monies will pay for in full, any surplus Application Monies will be refunded to that Applicant without interest as soon as possible after the Closing Date. No Applicant under the General Public Offer has any assurance of being allocated all or any Shares applied for. The allocation of Shares by the Company will however be influenced by the following factors:

- (a) the number of Shares applied for;
- (b) the overall level of demand for Shares under the General Public Offer;
- (c) the desire for an appropriate spread of investors, including to ensure that the Company meets the shareholder spread requirements in ASX Listing Rule 1.1 Condition 8; and
- (d) the desire for a deep, liquid and active trading market for Shares following completion of the Offer.

Neither the Company nor the Broker will be liable to any person who is not allocated Shares or not allocated the full number of Shares that they applied for.

### **1.20** Restricted Securities

None of the Shares being offered for issue under the General Public Offer will be subject to ASX-imposed escrow. However, the Company expects that ASX will require certain Shares that are on issue prior to the Prospectus Date (and potentially, some Shares that will be issued under the Conversion Share Offer) to be classified as "Restricted Securities" meaning that any such Shares will be required to be held in "escrow" for up to 24 months from the date of Official Quotation. During the period in which these Shares are escrowed, trading in the Company's un-escrowed Shares may be less liquid which may impact on the ability of a Shareholder to dispose of their un-escrowed Shares in a timely manner (or at all). The Company will provide a statement setting out the number of securities that are considered by ASX to be Restricted Securities prior to the commencement of Official Quotation of the Company's un-escrowed Shares.

### 1.21 Underwriting

The General Public Offer is not underwritten.

### 1.22 Withdrawal

The Directors may at any time before the Issue Date decide to withdraw this Prospectus and either component of the Offer in which case the Company will return all Application Monies received under the General Public Offer up to that time (without interest) in accordance with the requirements of the Corporations Act.

# **1.23** Paper Copies of Prospectus

The Company will provide paper copies of this Prospectus (including any supplementary or replacement document) and the applicable Application Form to eligible investors upon request and free of charge. Requests from Australian resident investors for a paper copy of this Prospectus should be directed to the Company's Joint Company Secretaries the contact details of which are set out in the Corporate Directory.

# 1.24 Enquiries

This Prospectus provides information for eligible prospective investors in the Company, and should be read in its entirety. If, after reading this Prospectus, you have any questions about any aspect of this Prospectus or the merits in investing in the Shares the subject of the Offer contact, as applicable, either the Company or your professional adviser without delay.

# 2. Company Overview

# 2.1 Background

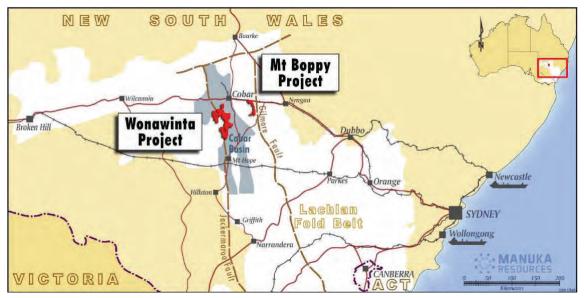
Manuka Resources Limited ACN 611 963 225 (**Manuka** or the **Company**) is a public company which was incorporated in Victoria, Australia on 20 April 2016.

The Company has the following key assets:

- (a) the Mt Boppy Gold Project; and
- (b) the Wonawinta Silver Project.

As a part of these key projects, the Company has:

- a processing plant and mill with current nameplate capacity of approximately 850,000 tpa (that is, the Wonawinta Processing Plant);
- mining accommodation camps at both projects;
- tailing storage facilities at both projects;
- approximately 60,000<sub>34</sub> tonnes at 2.54 g/t gold ore ROM stockpiles located at the Mt Boppy Gold Project; and
- approximately 500,000 tonnes at 70 g/t silver oxide ROM stockpiles located at the Wonawinta Silver Project.



(Figure 1 – Location of the Mt Boppy Gold Project and the Wonawinta Silver Project)

Since the acquisition of the Mt Boppy Gold Project and the Wonawinta Silver Project, the Company has:

- (a) commissioned a resource estimation report for the Mt Boppy Gold Project (a majority of which has been now upgraded to Mineral Reserve status);
- (b) prepared exploration strategies and detailed work programs for both the Mt Boppy Gold Project and the Wonawinta Silver Project;
- (c) updated mine operations plans and obtained all relevant consents, authorisations and licences for both the Mt Boppy Gold Project and the Wonawinta Silver Project;
- (d) refurbished the Wonawinta Processing Plant to enable the restart of processing onsite at the Wonawinta Silver Project;
- (e) begun construction of the stage 2 TSF lift (with completion expected in the third quarter of 2020); and

34 Of which, approximately 20,000 tonnes has, as at the Prospectus Date, been processed.

(f) commenced crushing and hauling of the Mt Boppy gold ore stockpiles for processing at the Wonawinta Processing Plant.

The Company's strategy can be broken into three (3) separate but interrelated phases:

# Phase 1: Mt Boppy

- (a) Continue processing gold ore from the Mt Boppy Gold Project<sub>35</sub>. The Company expects that such processing will produce up to approximately 22,000 to 24,000 ounces of gold over the next approximately 12 months.
- (b) Progress fieldwork on known exploration targets on granted Mt Boppy Gold Project mining leases and adjacent exploration licences with the intention of increasing the Mineral Resources attributable to the Mt Boppy Gold Project.

### Phase 2: Wonawinta

- (a) After the processing of the stockpiled Mt Boppy gold ore has concluded, the Company intends to commence processing the existing approximately 500,000t of oxide silver material stockpiled at the Wonawinta Processing Plant.
- (b) Exploration will continue with a focus on priority exploration targets to seek to identify potential further Mineral Resources in both precious and base metals at the Wonawinta Silver Project.

# Phase 3: Wonawinta

(a) Commence the mining and processing of the shallow oxide material located on the Wonawinta ML. The Company expects to be in a position to start this third phase in the first quarter of 2022.

# 2.2 The Mt Boppy Gold Project

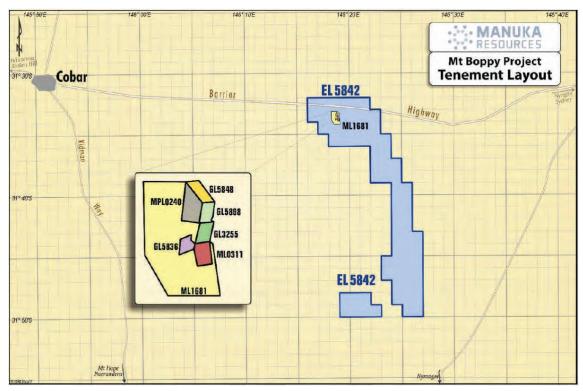
# Tenements

The Mt Boppy Gold Project (which comprises 3 granted mining leases, 4 gold leases, and one exploration licence (which together cover an area in excess of approximately 210 km<sub>2</sub>)) is located approximately 46 km east of Cobar, on the eastern side of the highly prospective and metalliferous Cobar Basin. The Company owns (via its wholly owned subsidiary, Mt Boppy Resources) 100% of the interests in the tenements detailed in the following table:

Tenement	Grant Date	Renewal Date	Expiry Date	Area (Ha)
GL3255	20-May-1926	08-Jul-2014	20-May-2033	8.30
GL5836	15-Jun-1965	08-Jul-2014	15-Jun-2033	6.05
GL5848	15-Feb-1968	08-Jul-2014	15-Jun-2033	8.62
GL5898	21-Jun-1972	08-Jul-2014	12-Dec-2033	7.50
ML311	08-Dec-1976	08-Jul-2014	12-Dec-2033	10.12
ML1681	12-Dec-2012	12-Dec-2012	12-Dec-2033	188.10
MPL240	17-Jan-1986	08-Jul-2014	12-Dec-2033	17.80
EL5842	19-Apr-2001	03-Jul-2017	19-Apr-2021	210 km <sub>2</sub>

Table 1 – Tenements Mt Boppy

35 Processing of Mt Boppy gold ore commenced in April 2020.



(Figure 2 - Tenements and geology of Mt Boppy Gold Project)

# Securities Bond

A cash deposit of \$1,365,000 has been lodged by the Company with the PIE as surety for rehabilitation obligations on the mining lease upon the cessation of activities at the Mt Boppy Gold Project. An additional \$10,000 has also been lodged with the PIE as security for rehabilitation obligations on EL5842.

# Accessibility

The Mt Boppy Gold Project mine site is accessed via the Barrier Highway located on the northern edge of EL5842 and via the Canbelego-Nymagee road which traverses the entire north-south extent of EL5842. Further access to the Mt Boppy Gold Project is obtained via dry weather shire roads and property access tracks located within EL5842.

# **Regional Geology**

Mount Boppy is hosted within Devonian-age sedimentary and volcanic rocks of the Canbelego-Mineral Hill Rift Zone. Mineralisation occurs largely in brecciated and silicified finegrained sediments of the Baledmund Formation, within and adjacent to a faulted contact with older Girilambone Group sedimentary rocks. Lodes strike approximately north-south and dip steeply west, although the widest zone of mineralisation is related to slightly shallower dips. Gold mineralisation is fine-grained and commonly associated with coarse grained iron rich sphalerite. Section 7.2 of the Independent Technical Report discusses the local geology of the project area.

# **Tenement Activity History**

Gold was first discovered at the Mt Boppy Gold Project in 1896 with the Mount Boppy Gold Mining Company formed in 1900 to mine 168 acres of gold leases that were secured around the discovery site. Major production from underground mining commenced in 1901 and continued until 1923. In its day, the mine was one of the largest gold producers in Australia. The orebody delivered some 417,000 ounces of gold from ore with a notional grade of 15 g/t gold<sub>36</sub> (12.2 g/t gold recovered). Exploration was conducted by several companies in the following years and it was only in 2002 that mining recommenced with Polymetals as detailed below:

Company	Years	Activity
Polymetals	2002 - 2005	Reopened mine and commenced open cut operations over the historic underground mine. Produced 68,000 ounces of gold.
BOK	2015	Cutback of the open pit with ore trucked to Wonawinta for processing. Produced 8,700 ounces of gold.

(Table 2 – Modern Operational History – Mt Boppy)

# 2.3 The Wonawinta Silver Project

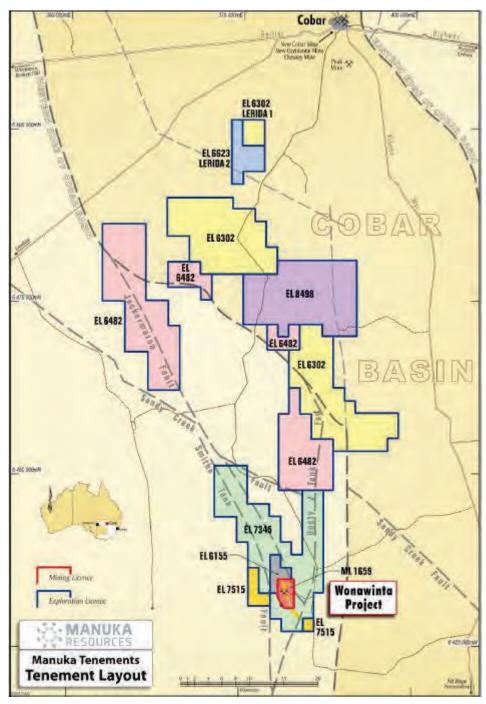
# Tenements

The Company directly owns 100% of the interests in the Wonawinta Tenements detailed in the following table:

Tenement	Grant Date	Renewal Date	Expiry Date	Area (km2)
ML1659	23-Nov-11	23-Nov-2011	23-Nov-32	9.24
EL6482	18-Nov-05	07-Mar-2017	11-Nov-21	268.21
EL7345	25-May-09	30-Mar-2017	25-May-22	169.18
EL6155	17-Nov-03	16-May-2017	17-Nov-21	10.54
EL6302	23-Sep-04	08-Feb-2017	23-Sep-21	280.02
EL7515	7-Apr-10	26-Jul-2017	7-Apr-22	14.53
EL6623	31-Aug-06	20-Jun-2019	30-Aug-20	26.24
EL8498	10-Jan-17	Pending	10-Jan-20	139.93

#### Table 3 – Tenements Wonawinta

The Company also holds title to the pastoral lease for the grazing property called "Manuka", upon part of which the Wonawinta Silver Project is located. The Manuka pastoral lease is connected to the low voltage rural power network and contains useful infrastructure namely a homestead and airstrip.



(Figure 3 - Tenements and geology of Wonawinta Silver Project)

# **Securities Bond**

A cash deposit of \$5,515,000 has been lodged by the Company with the PIE as surety for rehabilitation obligations on the mining lease upon the cessation of mining and processing activities at the Wonawinta Silver Project. An additional \$120,000 has also been lodged with the PIE as security for rehabilitation obligations on the Wonawinta exploration licences. Separately, the Company has lodged a bank guarantee in the amount of \$200,000 with the Cobar Shire Council as security for the performance of obligations arising under the development consent granted by the Cobar Shire Council.

# Accessibility

The Wonawinta Silver Project is accessible via state highways, formed gravel local council roads and pastoral property tracks. Unsealed roads and tracks may become difficult to traverse for heavy vehicles for several days after heavy rain. Unsealed roads comprise no more than 30 km of access to the Wonawinta Silver Project and are continually maintained to enable heavy vehicle movements in all but the heaviest rainfall.

# **Regional Geology**

The Cobar Basin is located in central-west New South Wales, approximately 700 km northwest of Sydney. It is a complex metallogenic system containing numerous mineral deposits. "Cobar-style" mineral deposits comprise a unique class of large and commonly high grade base and precious metal deposits hosted by marine sediments. They typically have great vertical extent but only a small surface footprint.

Refer to section 7.3 of the Independent Technical Report for further details of the applicable local geology.

# Tenement exploration activity history

A deposit was discovered on the Wonawinta Tenements in 1992 through regional stream sediment sampling. The deposit did not have a coincident magnetic, gravity, induced polarisation (**IP**) or electro-magnetic (**EM**) signature, and accordingly, was blind to preliminary geophysical exploration. Since discovery, the deposit has been explored by numerous companies.

Company	Years	Work completed	Results
Geopeko/Norgold	1989 - 1992	Regional stream sediment sampling; rotary air blast (RAB), reverse circulation (RC) and core drilling	Discovery of Pb-Zn mineralisation at the former EL 3255, drilling results generally poor
CRA Exploration	1993 - 1997	Regional lag soil sampling, 409 RAB drill holes; trial IP, EM, gravity, magnetics	Anomaly testing. Geophysics showed lack of physical response of mineralisation
Savage Resources/Pasminco Exploration	1997 - 2007	46 RC drill holes, 2 core drill holes; gradient- array and IP.	Primary Pb-Zn mineralisation low grade, but Ag in oxide target
CBH Resources (formerly Triako)	2007	11 RC drill holes	Targeted oxide Zn-Ag, sulphide base metal, vein Ag. Patchy mineralisation defined, further drilling recommended.
CCR	2006 - 2007	RC drill holes; soil sampling; geophysics (IP)	Inferred Resource at De Nardi Prospect (EL6302) of 1.8 Mt grading 47 g/t for 2.7Moz silver. Several other prospects defined, not all followed up.
CCR	2007 - 2014	Soil sampling; Resource drilling; VTEM survey; resource-reserve definition; DFS; commencement of mining and processing.	Resource/Reserve estimates at ML1659, EL6482 and EL7345. Mining in two (2) open pits. Total production of

			1.14Mt grading 98.16 g/t for 2.1Moz silver.
Black Oak	2014 - 2015	210 RC grade control drill holes within Manuka Pit; exploration data compilation.	Mining restarted in January 2015. 763Koz Ag produced from Manuka (north) and Boundary pits.

(Table 4 - Exploration history of various Tenements)

#### **The Wonawinta Processing Plant**

A maiden silver Mineral Resource was declared by Cobar Consolidated Resources Limited (**CCR**) in July 2008, which resulted in a feasibility study that was completed in June 2010. Construction of the Wonawinta Processing Plant commenced in July 2011 with first material processed from May 2012 and first silver poured in July 2012. The Wonawinta Processing Plant's operations ceased in March 2014 when CCR and its related entities were placed into voluntary administration.

While the Wonawinta Processing Plant was in operation under CCR, it faced difficulties due to assumptions in the feasibility study which proved incorrect after mining and processing activities had started. CCR attempted to make the required changes to the Wonawinta Processing Plant's flowsheet which included major changes to the comminution circuit via the addition of a small ball mill. However, poor project execution and sub-optimal plant performance made raising the additional funds to finance the Wonawinta Processing Plant's re-configuration difficult and ultimately unsuccessful.

The Company considers that many performance issues with the Wonawinta Processing Plant under CCR's ownership may be traced to flowsheet design flaws, inadequate metallurgical testing, incomplete classification of ore types encountered in the mining schedule together with a lack of timely and accurate provision of information to plant operators as the variable ore types were being mined and delivered to the ROM area. This situation was further exacerbated by inadequate metallurgical processes and procedures in the Wonawinta Processing Plant which were not properly tested during the ramp-up stage of operations. Based on the Company's review of CCR's monthly operating reports and more recent assays, mineralised material of 30 g/t or more of silver was potentially being sent to the TSF.

Over the initial period of operations, the ROM stockpiles increased to larger than design levels during this period as the oversized and harder material which was being mined could not be processed with the comminution circuit of the Wonawinta Processing Plant that existed at the time. A modest 400kW ball mill was installed by CCR in 2013 to partially remedy the situation. When operations at the Wonawinta Silver Project were halted in early 2014 and CCR entered into voluntary administration, these stockpiles remained. They are now a potentially valuable source of low-cost mill feed material into the Wonawinta Processing Plant which (following the refurbishment detailed below) will be better suited to this material.

The Wonawinta Silver Project was subsequently sold to Black Oak in September 2014. The acquisition included the Wonawinta Processing Plant with a production capacity of approximately 850,000 tpa and infrastructure built by CCR at a cost of more than \$60 million. Black Oak invested approximately \$6 million in upgrading the processing facility in late 2014 to early 2015 by installing a larger 1800kW ball mill and other front end plant modifications.

Between March and September 2015, Black Oak recommissioned the Wonawinta Processing Plant by mining and processing silver oxide material from the active Wonawinta/Manuka pit and produced 763Koz of silver before transitioning to producing gold ore (trucked in from the then Black Oak-owned Mt Boppy gold mine) from September 2015.

Black Oak had produced approximately 8,700oz of gold until operations ceased at the end of November 2015. Black Oak had downgraded the gold Resource at its Mt Boppy operations in November 2015 after completing an infill drilling program at the bottom of the pit at the end of October 2015. Black Oak considered after the Resource downgrade that the secured creditor could not be repaid in full from cash flow from the Mt Boppy pit alone. Black Oak was unable to secure additional sources of working capital in late 2015 and appointed voluntary administrators on 27 November 2015.

The sale of the Wonawinta Silver Project to Manuka was finalised on 31 August 2016 and included all of the Black Oak's mining and exploration tenements and ownership of the "Manuka" leasehold pastoral property.

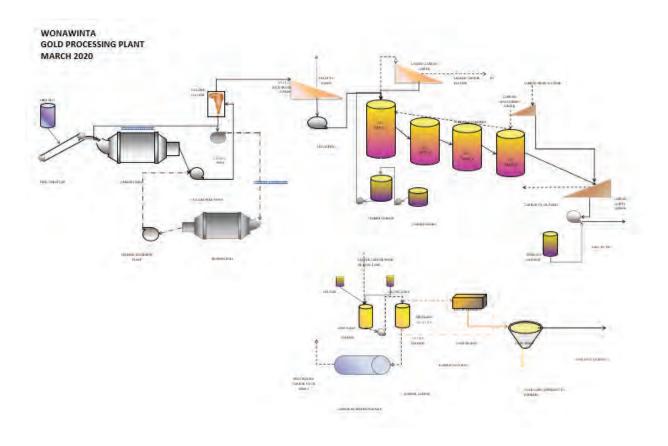
# 2.4 Current Steady State Processing Overview

# Mt Boppy Gold Ore37

An overview of the proposed steps the Company intends on (and in some instances, has already commenced) pursuing to produce gold doré from the existing gold ore stockpile and reserve at the Mt Boppy Project at the Wonawinta Processing Plant is provided below:

- A local contractor has been engaged to conduct open pit mining using conventional drill and blast, load and haul methods. The mined ore will be crushed at the Mt Boppy site and hauled by road train to the Wonawinta Processing Plant for processing.
- The crushed and screened ore will be fed into the grinding circuit via the feed hopper by front end loader where it is conveyed to the 1800kW ball mill where the feed is regulated by a belt weightometer. Hydrated lime is added to the ore on the feed belt to provide the required pH in the CIL section. The ground ore passes through the mill and is discharged into a mill trommel. Oversized ore is screened out and periodically recycled back to the mill via the feed hopper. The screened slurry is then pumped to a cluster of cyclones with any underflow containing coarse particles returned to the ball mill feed. Cyclone overflow gravitates to a trash screen to remove wood pulp and plastic before being pumped to the Carbon In Leach (CIL) circuit.
- To enhance the processing efficiency of the Mt Boppy gold ore the CIL tanks have been reconfigured (since 2015 operations) with simple piping re-routing to operate one 1,000m<sub>3</sub> tank and three (3) 450m<sub>3</sub> tanks to give the slurry a residence time of approximately 20 hours at a feed rate of 57 tonnes per hour. Sodium cyanide is added to the feed at CIL tank 1 via a variable speed centrifugal pump. All tanks are operated as CIL tanks, where in each tank the leaching of gold with sodium cyanide occurs simultaneously with the absorption of the gold into activated carbon. The activated carbon is added to CIL tank 4 and transferred counter flow via recessed impeller pumps to the CIL tank 1. Interstage screens are installed in all tanks which allow the passage of slurry to the next tank while retaining the carbon. Loaded carbon from the first CIL tank is regularly pumped over the loaded wash screen and delivered to the acid wash column prior to stripping. Meanwhile the slurry tailings from CIL tank 4 are discharged through a final carbon safety screen, ferrous chloride is then added to the tailings in order to obtain the required WAD cyanide levels and pumped to the existing tailings storage facility.
- The loaded carbon is discharged from the wash screen into the acid wash vessel where the carbon is treated with hydrochloric acid solution and rinsed with water and dilute caustic solution before being pumped to the elution column. The carbon is stripped of gold and the resulting pregnant solution goes through an elution column and electrowinning circuit and the resulting sludge is filtered, dried and smelted into gold doré.
- Finally the doré will be transported via a security contractor to the nominated refinery.

37 The steps noted in this Section 2.4 assume that the Company's modular elution circuit has been commissioned and is fully operational (thereby obviating the need for the Company to truck gold-loaded carbon for further offsite processing).



# Wonawinta Silver Project processing

An overview of the proposed steps the Company intends on pursuing to produce silver doré from future mining activities at the Wonawinta Silver Project (that is, after the processing of stockpiled Mt Boppy gold ore and reserve has concluded) is provided below:

- silver oxide ROM material will be crushed in a jaw crusher before transfer to the ROM pad;
- material from the ROM pad will then be fed into a ROM bin at a rate of 100t/hour (equivalent to approximately 850,000t pa);
- the ROM bin will be discharged directly onto the ball mill feed conveyor with feed material mixed with recycled cyclone underflow and the secondary ball mill product;
- the ball mill product will be pumped into a cyclone nest for classification with the underflow recycled back to the mill feed and the overflow passed over a double deck screen (previously the log washer discharge screen) which will act in the capacity of a trash screen;
- the screened cyclone overflow (fines) will be pumped directly to the cyanide leach circuit;
- screen oversize from the trash screen will be pumped to the secondary 400 kW ball mill with the secondary ball mill product pumped back to the primary ball mill feed chute;
- the standard configuration carbon-in-pulp circuit contains two (2) leach tanks and four (4) carbon adsorption tanks (450m<sub>3</sub> each). Carbon will be fed counter current to the slurry at a rate equivalent to 21 tonnes per day. (The plant layout has provision for of an additional two (2) 450m<sub>3</sub> tanks for future construction);
- loaded carbon will be stripped in the 10 tonne batch elution circuit at a rate of 12 cycles per week, the resulting clear pregnant silver solution fed to the zinc precipitation circuit;
- silver precipitate will be filtered on one (1) of two (2) plate and frame filters. Lead and mercury will be removed from the silver precipitate by retorting, with mercury captured as a by-product and sold; (for cost recovery purposes);

- purified silver from the retort will then be refined and cast into silver doré with greater than 90% silver content; and
- leached tailings from the cyanide circuit will be dosed with ferric chloride to remove any residual cyanide to environmentally acceptable levels and pumped to the tailings dam at 98 tph at approximately 34% solids. The tailings slurry will settle in the dam and will permit on average 67% of the water to be recycled back for use in the processing plant.
  - Cvanide CIL Decant Water Flution Column Carbon Zn Dust Regeneration TSF Kiln Hg Retort Filter Silver Doré 5 Refining Furnace
- The figure below outlines the process detailed above. Further information on the process is detailed in section 13 of the Independent Technical Report.

Figure 4 - Silver Processing Overview

#### Mineralisation (Oxide & Sulphide) and Geology

The Wonawinta Silver Project and the Mt Boppy Gold Project are both located in the highlyprospective "Cobar Superbasin". The Cobar Superbasin is a north-south trending belt of mid-Palaeozoic age (460-440 million years old) sedimentary and volcanic rocks deposited in a series of asymmetric deep-water troughs up to 9 km deep surrounded by shallow water shelves.

Mt Boppy is located on the eastern side of the Cobar Superbasin within the northern tip of one trough known as the Cabelego-Mineral Hill Rift Zone. The Mt Boppy gold deposit is a gold-rich member of the high-grade Cobar-style polymetallic (Au-Ag-Pb-Zn-Cu) deposits. The geometry of mineralisation shows two (2) main zones - east and west lodes parallel to faulted contacts that converge and intersect at depth. The east lode mineralisation is developed as quartz veining, quartz fill breccia and wall rock silification parallel to the faulted eastern contact of Baledmund and Girilambone rocks. Thickness of the lode mined underground varied considerably, from 1.5m to 10m. The west lode has a width of about 1-2m and is largely fault breccia comprising fragments of phyllite, sericitic siltstone and quartz.

The carbonate hosted Wonawinta silver-lead-zinc deposit lies on the western margin of the Cobar Superbasin within a tectonostratigraphic unit known as the Winduck Shelf. Mineralisation is hosted by a limestone sequence of the Early Devonian Winduck Group. The mineralised zone strikes North-Northwest and dips gently to West-Southwest following stratigraphy and extends over a strike length of some 15 km.

Mineralisation comprises high grade silver with associated low-grade zinc and lead in a carbonate host rock similar to Mississippi Valley Type (**MVT**) mineralisation and discontinuous irregular lenses hosted by limestone reef faces and cut by NW-trending faults.

The geological setting, host rocks and geometry of mineralisation largely fit this MVT model, although the high silver grades with associated gangue minerals observed at the Wonawinta Silver Project may be more typical of Irish style deposits.

Silver-lead-zinc mineralisation within the Wonawinta Tenements and laterally, occurs along 8 km of strike, parallel to the Wonawinta Anticline hinge zone. The plus-40 g/t Ag mineralisation envelope varies from 30m to 750m wide (average 400m) and extends down-dip to the west, remaining open in this direction.

Mineralisation occurs both in oxidised and fresh rocks straddling the contact between booth limestone and transitional unit rocks. Deep weathering has created a succession of variably leached clays and weathered limestone bedrock that host oxide mineralisation. Sulphide mineralisation is mostly hosted by limestone or dolostone, but also occurs in claystone.

A detailed discussion of the local geology, mineralisation and structure is detailed in section 7 of the Independent Technical Report.

### **Current Status of the Mineral Resource**

The Mineral Resource estimates have been updated for both projects by Mining Associates and classified into Measured, Indicated and Inferred confidence categories.

# Mt Boppy Gold Project

All resources have been stated above a 1 g/t Au cut-off giving a total resource of 444,000 tonnes at 3.13 g/t Au providing 44,720 ounces. This includes approximately 60,300 tonnes at 2.54 g/t Au in existing ROM stockpiles.

Resource Category	Material	Tonnes	Grade g/t Au	Contained gold Troy ounces
Measured	in-situ	48,900	3.24	5,090
	stockpiles	60,300	2.54	4,920
Indicated	in-situ	195,500	2.99	18,790
	stopes	115,300	3.60	13,350
Inferred	in-situ	24,000	3.33	2,570
Total		444,000	3.13	44,720

(Table 5 - Mineral Resource estimate at the Mt Boppy Gold Project including the existing gold ore stockpile)

### Wonawinta Silver Project

The total Mineral Resource reported above a 20 g/t Ag cut-off grade is 38.77 million tonnes at 42.0 g/t Ag and 0.61% Pb providing 52.367 Moz of silver and 236.5kt of lead. Stockpiled silver oxide material is estimated to total 515,740 tonnes grading 70.01 g/t Ag for 1,161,000 oz of silver. Lead grades in the stockpiled material are not able to be estimated with confidence at this stage.

Resource Category	Material (Mt)	Ag (g/t)	Pb (%)	Ag Moz	Pb kt
Measured	0.89	45.0	0.70	1.29	6.22
Indicated	8.50	48.5	0.79	13.24	67.45
Inferred	29.39	40.0	0.55	37.84	162.87
Total	38.77	42.0	0.61	52.37	236.5

(Table 6 - Mineral Resource estimate at the Wonawinta ML)

Seventy-six percent (76%) of the current Mineral Resource estimate is in the Inferred category. This is due primarily to the widely spaced drill intersections. Drill hole data spacing is variable throughout the areas assessed and ranges from broad first-pass exploration (250 x 50 m regionally) to the RC grade control drilling (10 x 10 m) in parts of the Manuka Silver Project, such as the Boundary and Manuka pits. Areas adjacent to the pits were typically drilled on a 50 x 50 m spacing.

A detailed discussion of the methodology, data and estimation of the current Mineral Resource is detailed in section 14 of the Independent Technical Report.

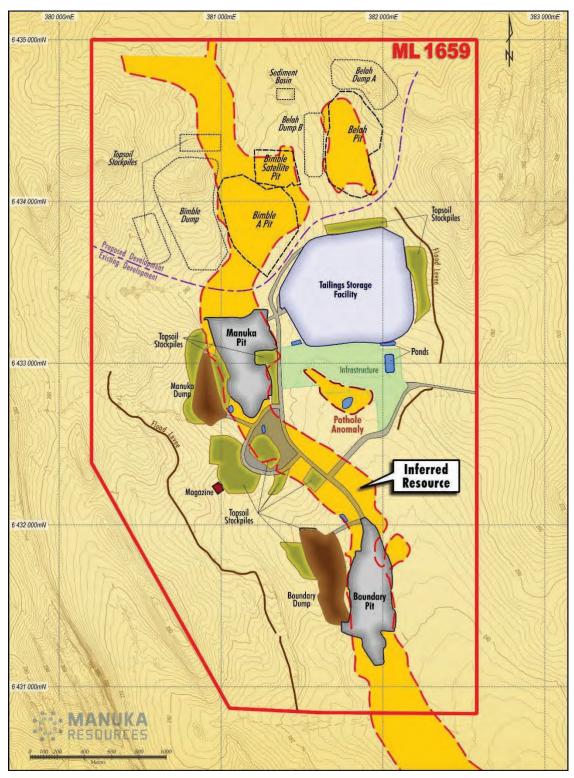
### **Environmental Approval**

The environmental protection licence was originally issued by the EPA to CCR on 14 November 2011 and transferred to Black Oak on 14 November 2014. Following the acquisition by the Company and completion of the requirements of special conditions, the licence was subsequently transferred to the Company effective 1 October 2018.

# Permit and Approvals

The Company has reviewed the legislative requirements and has compiled a register of the environmental, heritage and planning approvals and permits necessary to recommence operations at both projects.

The development consent for the establishment of the mine was issued by the Cobar Shire Council in 2010 (subsequently modified) and remains current. It is noted that the previous owner of the Wonawinta Silver Project constructed some smaller buildings without obtaining construction certificates and that the Cobar Shire Council could potentially apply for an injunction to restrain the use and occupation of the buildings until a construction certificate is obtained. As at the date of this Prospectus, the Cobar Shire Council has not notified the Company of any such issues or otherwise indicated any intention to take action in relation to the outstanding certification matters and has agreed to give the Company time to comply with this outstanding matter. The Company has also discussed with the Cobar Council its intention to lodge modifications to the current Development Consents for both projects to better suit the scale and manner of operations to be carried out under its development strategy.



(Figure 5 – Existing mine infrastructure and resource outline in ML 1659)

# 2.5 Strategy and Development Plans

The Company's strategy is based on undertaking a logical sequence of events which is designed to provide maximum value to all stakeholders. This strategy includes:

- With the Wonawinta Processing Plant refurbishment complete, the Company will process the easily accessible gold stockpiles and reserves from the Mt Boppy Gold Project and will also conduct an infill drilling program on known resources at the Wonawinta Silver Project.
- Once the current Mt Boppy open pit gold reserves are exhausted, mining and processing of silver oxide material through the Wonawinta Processing Plant will commence. Concurrently, the Company intends to undertake infill and exploration drilling at the Wonawinta Silver Project in order to:
  - i. define areas for mine planning by infill drilling the current inferred oxide resource base;
  - ii. test drill deeper sulphide targets on the Wonawinta ML with the aim of developing secondary sulphide ore streams; and

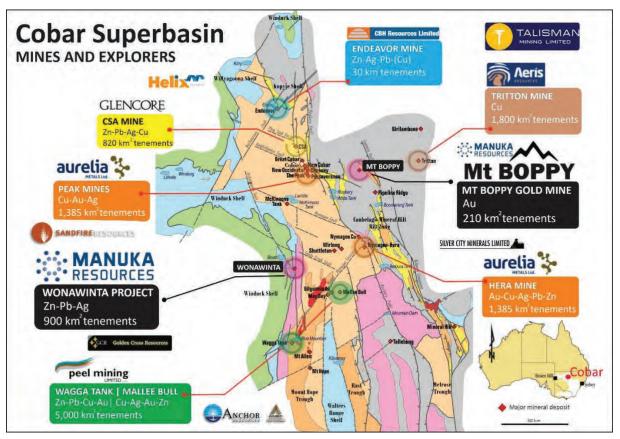


iii. conduct field work on priority targets on exploration leases for both precious and base metal systems as discussed in the Section below.

(Figure 6 - The Wonawinta Plant)

#### **Exploration Strategy and Overview**

The Company intends to undertake exploration on its over 1,100 km<sub>2</sub> of tenements all of which are located within the highly prospective Cobar Superbasin. The exploration strategy comprises a combination of brownfields evaluation (on granted mining titles and nearby exploration licences) and greenfields exploration on its prospective, either not fully explored or underexplored, exploration licences. Numerous other companies are conducting mining and exploration activities within the Cobar Superbasin as shown below.



(Figure 7 - Location of Manuka Resources sites (Wonawinta and Mt Boppy Gold Mine) and other companies' operations/exploration in the Cobar Superbasin)

# **Exploration Planning and Drilling Programs**

The Company intends to conduct a range of exploration activities and follow-up drilling programs, along with facilitating planning for potential oxide silver mining and to evaluate the potential to mine silver, lead and zinc sulphide. Drilling will be conducted on high priority targets at both the Mt Boppy Gold Project and the Wonawinta Silver Project contemporaneously with the ongoing processing of Mt Boppy gold ore. Greenfields activities on less advanced or incompletely assessed prospects will also be carried out in line with an overall strategy of progressively testing and identifying potential mineralisation, increasing confidence in existing resources and processing to mine planning for future mining.

The Company's exploration planning and drilling programs are divided into three (3) key components, namely (i) near-mine evaluation activities at Mt Boppy (ML/GLs and adjacent EL5842), (ii) near-mine evaluation at Wonawinta (Wonawinta ML and adjacent Wonawinta ELs) and (iii) early/follow-up-phase exploration on the Company's exploration tenements/mining leases as follows:

# Near mine Mt Boppy (ML/GLs and adjacent EL5842)

The Mt Boppy Gold Project encompasses a high-grade gold deposit similar to other Cobarstyle polymetallic (Zn-Pb-Ag-Cu-Au) deposits. Cobar-style deposits are understood to have pipe-like orientations with small surface footprints and steep plunges extending to considerable depth (up to 1 km deep). Multiple deposits can develop over large strike extents (+10 km). The objective of the Company's near mine activities at the Mt Boppy Gold Project is to evaluate the ML/GLs and adjacent EL5842 for gold mineralisation extensions by:

- (A) Identifying potential mineralisation extensions to the known gold Resources. Existing Resources have to date been tested unsystematically to only 215m depth. Very little effective deep drilling has been undertaken at the Mt Boppy Gold Project to test for depth extensions and strike extents have received only limited assessment;
- (B) Undertaking 3D synthesis and targeting in the 3 × 3 km Mt Boppy-Canbelego Gold Camp area. There are significant gold occurrences in historical shallow drill holes and numerous mine shafts are located within the Gold Camp. The Company intends to undertake an integrated camp-scale compilation approach to facilitate near mine

targeting for new gold Resources. The past decade has seen many advances in understanding the genesis of Cobar-style polymetallic ore systems which have not yet been systematically applied in the Mt Boppy-Canbelego Project area; and

(C) Further investigating numerous untested or inadequately tested areas by drilling, various prospects located in the structural corridor known as the "Central Structural Zone" in the northern part of EL5842, along with other prospects and areas located further south on EL5842 that require further assessment.



Figure 8: Mt Boppy-Canbelego Project Area and Prospects.

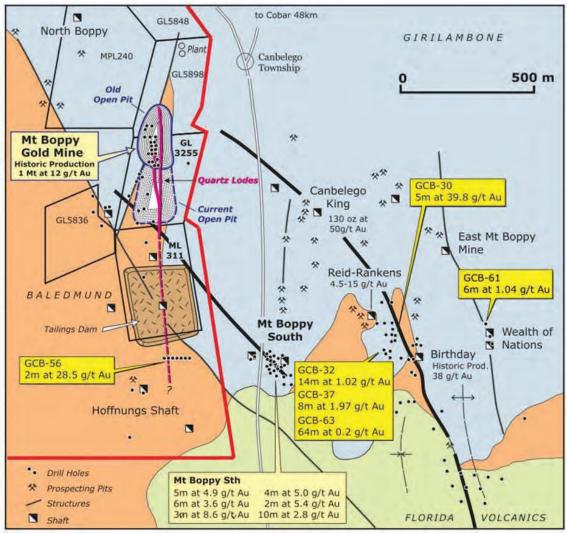


Figure 9: Mt Boppy-Canbelego Gold Camp area

#### Near Mine Wonawinta Gold Project

The Company's primary objectives in relation to the Wonawinta ML include:

- (A) To increase confidence in Inferred Mineral Resources to Indicated and/or Measured categories. Following this, mining studies will be undertaken to prepare mining schedules for the commencement of "Phase 3" activities; and
- (B) Define new areas of both oxide and sulphide mineralisation on the Wonawinta ML.

The Company intends to undertake priority exploration along the trend from the Wonawinta ML and into EL7345, comprising the "Wonawinta" line of lode.

There are two (2) main avenues to increasing the known mineralisation within the Wonawinta Tenements:

- (A) Definition of further supergene oxide clay material at near surface (less than 50 metres depth); and
- (B) Define the deeper, sulphide mineralisation extensions below current drilling.

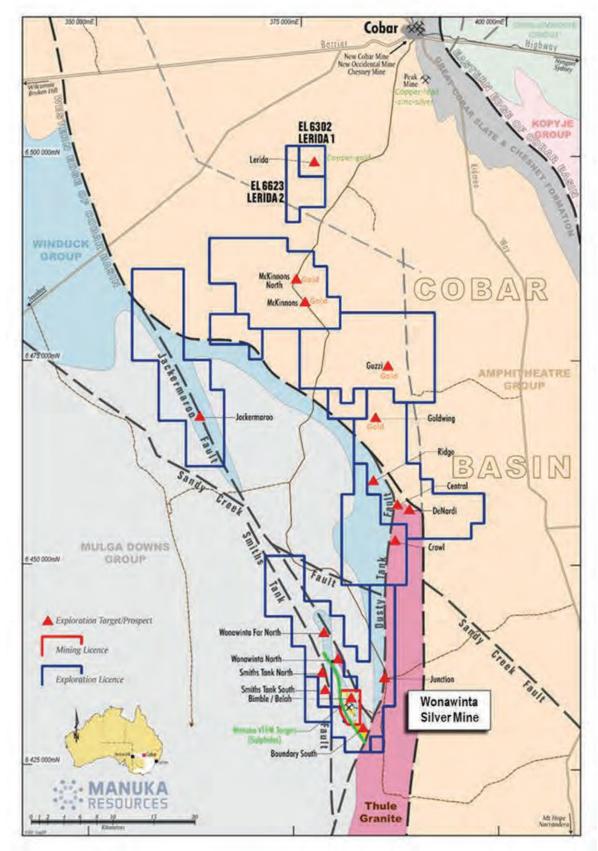


Figure 10: Wonawinta Silver Project Area and Prospects

Most Mineral Resource definition drill holes (over 95%) are less than 50m deep and many holes were terminated at the base of weathering, still within mineralisation. This mineralisation open at depth represents a significant target for future exploration and is a logical priority drill target within the Wonawinta ML. There are obvious areas within the current resource on the Wonawinta ML (52Moz of silver and 237Kt of lead averaging 42 g/t Ag and 0.61% Pb) that the Company will focus on. Mining studies to convert the current Resource into future production

will be undertaken. Refer to section 14 of the Independent Technical Report for a breakdown of the current Mineral Resource by category.

In addition, many of the previous drill holes ended within sulphide mineralisation in fresh (unoxidised) rocks. The Company believes there is potential for a sulphide mineralisation beneath the known oxide deposit. Preliminary interpretation of geophysics (mostly VTEM data) acquired over the Wonawinta ML and adjacent EL7345 suggests essentially untested primary sulphide mineralisation that extends for an 11 km strike length down-dip of the oxide/weathered Mineral Resources. Accordingly, the Company intends to define the deeper sulphide mineralisation which could ultimately prove to be substantially larger than the original oxide deposit.

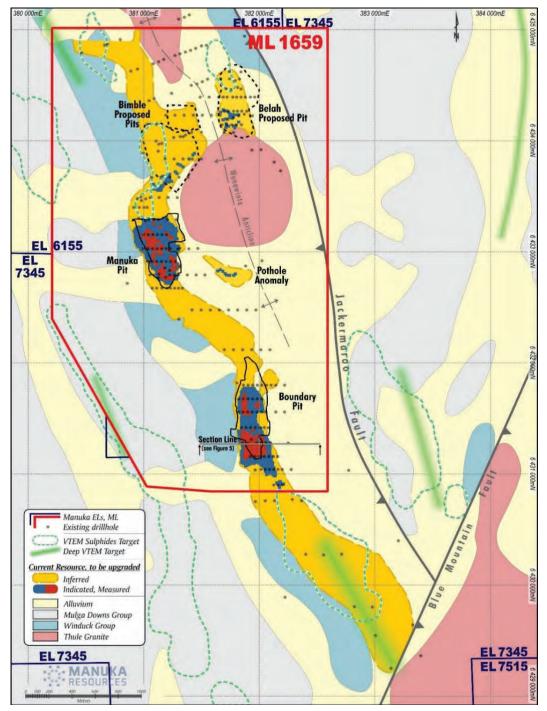


Figure 11 - Wonawinta near mine prospects and extent of mineral resources

# Mt Boppy and Wonawinta exploration licences

The Company plans to undertake a cost-effective and staged exploration program on the Mt Boppy exploration licences and Wonawinta ELs through effective testing of high priority

targets. Exploration for the vast majority of the Company's exploration tenements is at an early stage (greenfields).

The Company believes that application of modern and demonstrated as effective exploration techniques, that have been successful in recent years elsewhere in the region, will further enhance the likelihood of a significant discovery being made on its tenement package. To facilitate this, the Company intends to carry out increased exploration under cover, including utilising various state of the art geophysical and multi-element geochemical techniques that to date have not been consistently and systematically applied over the Company's exploration licences.

The Company's exploration portfolio lies within the Cobar Superbasin which is very prospective for the following identified mineralisation types:

- (A) Carbonate-hosted silver-lead-zinc in Booth Limestone Member (for example, Wonawinta: MVT and some variants (for example, Irish type));
- (B) "Cobar-style polymetallic" (Zn-Pb-Ag-Cu-Au) for example, as at the Endeavour Mine (owned by CBH Resources), Peak Mine (owned by New Gold Inc.) CSA Mine (owned by Glencore), Wagga Tank prospect (owned by Peel Mining); and
- (C) Low sulphidation epithermal gold (for example, the McKinnons Gold Mine).

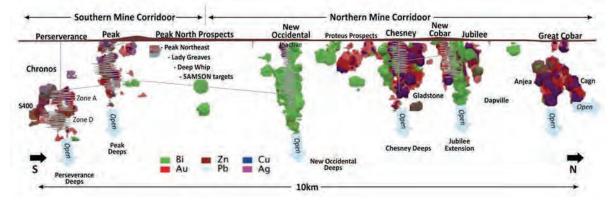


Figure 12 – Cobar Mine Corridor (Source Aurelia Metals)

Previous explorers have identified multiple prospects by carrying out exploration activities including regional soil geochemistry, various geophysical surveys and follow-up drilling.

Accordingly, the Company intends to use the funds raised from the Offer to conduct prioritised exploration programs within the Mt Boppy exploration licences and the Wonawinta ELs. A detailed discussion of the current prospects and proposed exploration activity is provided in section 9 of the Independent Technical Report. The following table summarises the exploration prospects, priorities and proposed work programs across the tenements.

Target	Priority	Prospects	Proposed Work Description	Licence		
	Manuka Targets					
Brownfields evaluation of near mine extensions on Wonawinta Mining Title. Wonawinta Style Ag-Pb-Zn	1	Bimble, Belah, Boundary	Targeting known silver-lead-zinc mineralisation and prospects on permitted ML to extend and identify additional mineralisation. Both oxide and high-grade primary Ag-Pb-Zn sulphide potential will be evaluated. Extensive geophysical coverage (IP, VTEM, Mag) and new structural-stratigraphic interpretations demonstrate strong NE structural (possible feeders) control. Drilling (RC) will be prioritised.			
Greenfields exploration on exploration licences. Wonawinta Style Ag-Pb-Zn	1	Smith's Tank, South Boundary, Wonawinta North, Junction	<u>Smith's Tank</u> : Western stratigraphic extension of the Wonawinta Ag- Pb-Zn deposit. <u>South Boundary (brownfields)</u> : Drill extension of known Boundary resource south into EL. <u>Wonawinta North</u> : Drill test zinc-rich, silver poor oxide mineralisation and soil anomalies. Aircore and multi- element geochemistry. <u>Junction</u> : Follow-up soil sampling and drill test shallow VTEM anomalies.	EL6155, EL7345, EL7515		

Greenfields exploration on exploration licences. Cobar- style polymetallic (Au-Cu-Pb-Zn-Ag) and Epithermal gold		Cobar-style: Goldwing, Guzzi, Lerida, and lower priority targets	Multiple greenfields prospects with soil geochemistry anomalies, coincident geophysical anomalies and interpreted favourable structural setting. No or sparse drill follow-up. To test for shallow manifestations of Cobar-style polymetallic mineralisation, an initial program of rapid Aircore and multi-element geochemistry is proposed for near-surface targets. RC/Diamond drilling will be used for follow-up and deeper targets.	EL6302, EL8498, EL6482
		Epithermal gold: McKinnons and nearby prospects	Evaluation of structural controls and effectiveness of prior exploration and datasets. Aircore with multi-element geochemistry and potential CSAMT geophysical survey to explore for resistive quartz vein zones and extensions of epithermal gold mineralisation.	EL6302
Study Work	1	Wonawinta	Preliminary metallurgical drilling and sighter test work for new Wonawinta resource extensions.	ML1659, others
			Mt Boppy Targets	
Brownfields exploration: Mt Boppy Gold Mine titles and the wider Mt Boppy- 1 Canbelego Gold Camp for gold- rich Cobar-style polymetallic		Mine titles: Boppy Southern extension, Boppy northern extension,	Targeting potential extensions of gold mineralisation on permitted ML/GLs to identify additional gold mineralisation. Undertake geological and structural synthesis, consider CSAMT geophysics and spectral analysis to facilitate structural and mineralisation model interpretation.	GL3255, GL5836, GL5848,
	1	Exploration Licence: Mt Boppy South, Birthday, East Wealth of Nations, Canbelego-King, Reid-Rankens	Exploration for Gold: Geological and structural synthesis of 3 × 3 km Gold Camp with abundant historical workings not evaluated. Geophysical acquisition: Magnetics, and CSAMT (resistivity to identify potential gold and vein structures). Drilling: Aircore with testing for multi-element geochemistry, lithogeochemistry, spectral analysis. Follow-up RC and oriented diamond drilling (with structural analysis).	GL5898, ML311, ML1681, MPL240, EL5842
Greenfields exploration on exploration 2 licences, Cobar-		Central Structural Zone: Florida Volcanics, Birthday prospect, Native Dog Hill, Native Cat, Scrubby Tank, C2A	Follow-up prospects: refine geological model, focus on understanding structural setting and paragenesis of alteration (whether it is barren metamorphic or shows evidence of mineralisation events) through application of multi-element geochemistry techniques. Consider spectral analysis to facilitate vectoring. Undertake deeper RC with Diamond tails and oriented core as required.	EL5842
style polymetallic (Au-Cu-Pb-Zn-Ag)		Soil anomalies (Geweroo/Nerang) and Other Targets	Soil targets with no drilling: Initial follow up with Aircore drilling and bedrock multi-element geochemistry traverses. Other Targets: Review and consideration of effective data coverage and broader structural setting. Application of Aircore drilling and bedrock multi-element geochemistry traverses to enable target prioritisation. Further drilling as required.	

Table 7 – Summary of the targets, prospects and proposed work programs across the tenements

#### **Exploration Potential Assessment**

The Mt Boppy-Canbelego Project is located in a 9 km<sub>2</sub> camp centred on the historical Mt Boppy Gold Mine, which occupies a small footprint within what has only been explored at relatively shallow depth to date. Drilling activities carried out so far aimed at finding depth and strike extensions to the currently defined Mineral Resource have been largely unsuccessful, ad-hoc and not systematic. The Company believes there is significant potential for adopting an integrated 3D synthesis camp scale approach to identify further gold mineralisation within the Mt Boppy-Canbelego Camp area.

In addition, there is potential for the discovery of additional greenfields, most likely Cobar-style Au-Cu-Pb-Zn-Ag deposits on the adjacent EL5842 on the basis that:

- several relatively advanced prospects previously defined by various geochemical and geophysical surveys located within the Central Structural Zone have either been only lightly drilled or not drilled effectively and therefore require follow-up;
- (B) some highly prospective areas within the Central Structural Zone, including the Mt-Boppy-Canbelego Camp have only localised soil grids, not always with complete coverage for gold that require infill and extension to better define drilling targets; and
- (C) some target areas, mostly defined by soil sampling and also partly by geophysics exist on EL5842 that require initial shallow drill testing to enable assessment of mineralisation potential (for example, Geweroo).

There is also potential for the Company to increase confidence in the existing Mineral Resource for the Wonawinta Silver Project. Furthermore, planned drilling activities on the Wonawinta ML is expected to facilitate definition of future mining production from shallow oxide silver mineralisation close to the Wonawinta Processing Plant and improve confidence in the existing Inferred Resource.

In addition, there is potential to define new areas of mineralisation on both the Wonawinta ML and the adjacent Wonawinta ELs on the basis that:

- the Wonawinta ELs represent a significant portfolio of prospective exploration licences containing existing exploration targets with both "Cobar-style" polymetallic mineralisation and carbonate-hosted silver-lead-zinc mineralisation;
- (B) shallow silver-lead oxide mineralisation extends along strike from the Wonawinta ML into the Wonawinta ELs for approximately 8 km;
- (C) carbonate hosted silver-lead-zinc sulphide mineralisation is interpreted beneath the oxide silver resources and extends for an 11 km strike length within and adjacent to the Wonawinta ML; and
- (D) defined anomalies range from early-stage soil and geophysical targets through to drillready status including three (3) anomalies with small defined Mineral Resources (Bimble, Belah and Boundary).

#### **Project economics**

Mining and processing costs in relation to the processing of Mt Boppy gold ores are summarised in section 22 of the Independent Technical Report and is reproduced in the table below:

Cost Area	Est Cost per Month, Total \$	Cost, \$/tonne Processed
Administration		
Labour	\$91,146	\$2.38
Administration Costs	\$132,356	\$3.45
Sub Total - Administration	\$223,501	\$5.83
Mining		
Mining Owners Labour	\$26,563	\$0.69
Owners Admin – Other	\$135,000	\$3.52
Mining Contractor	\$635,978	\$16.59
Sub Total – Mining	\$797,540	\$20.80
Crushing	\$381,670	\$10.00
Ore Haulage - 150 km @ 13c/km	\$744,257	\$19.50
Processing		
Labour	\$404,167	\$10.54
Ball Mill Power	\$204,000	\$5.32
Rest of Plant Power	\$249,333	\$6.51
Reagents	\$357,153	\$9.35
Water Supply (incl. in Reagents item above)	\$0.00	\$0.00
Maintenance Materials	\$83,333	\$2.17
Admin – Other	\$31,667	\$0.83

Sub Total - Process Plant	\$1,329,653	\$34.72
Total Site Cost	\$3,476,622	\$90.85

Revenue calculations per tonne of ore processed are derived from the following set of assumptions over the life of the gold processing phase:

Gold price	A\$2,500 /oz
Metallurgical recovery	75%
Head Grade	3.0 g/t
Net AUD revenue per tonne	\$180.85

The above revenue assumptions generate a net cash flow of approximately \$90 per tonne of processed ore which on a total tonnage of approximately 322,000 equates to approximately \$29 million.

# 2.6 Key Strengths

The Board considers that the key strengths and competitive advantages of the Company are as follows:

- (a) **Granted mining leases** both of the Company's projects include granted mining leases;
- (b) **Existing plant & infrastructure** the Company also owns:
  - the recently refurnished Wonawinta Processing Plant;
  - mining accommodation camps at both of the Company's projects;
  - tailing storage facilities at both of the Company's projects; and
  - stockpiled gold ore and silver oxide materials at the Mt Boppy Gold Project and the Wonawinta Silver Project, respectively;
- (c) Immediate revenue potential the Company is currently in production which will allow it to produce revenue to the extent necessary to ensure that it is able to repay its debts as and when they fall due and to potentially fund future exploration and associated activities in relation to each of its key projects;
- (d) Exploration potential the Company believes that there is potential for the Company to increase the confidence of the existing Mineral Resources (that is, for both of its key projects) by undertaking the exploration and associated activities referred to in this Section 2;
- (e) Medium-term revenue potential the Company believes that the Wonawinta Silver Project has potential to generate significant revenues from the mining and processing of the existing shallow oxide Mineral Resources near the Wonawinta Processing Plant which would produce silver doré for subsequent third party refining and sale;
- (f) Longer-term revenue potential the Wonawinta Silver Project affords the Company optionality over longer term future development scenarios, namely the potential mining and processing of the sulphide mineralisation to produce silver concentrate. This longer-term revenue potential is contingent upon the definition of a significant sulphide mineralisation, assessment of development scenarios and reconfiguration of the Wonawinta Processing Plant;
- (g) Location both of the Company's projects are situated within the Cobar Basin, a renowned mineral province which hosts numerous mineral deposits and operations, several of which are considered world class in grade and size. The Wonawinta Processing Plant is the only processing facility in the southern Cobar Basin and is proximal to several base metal resources owned by third parties;
- (h) Local stakeholder alignment neither of the Company's projects have nearby residential neighbours and the Company has developed positive relationships with adjacent landholders. The Cobar Shire Council is positively aligned with the mining

and exploration industry and is supportive of the Company's effort to continue the development of its Projects; and

(i) **Experienced project development team** - the Company has an experienced Board and management team with a broad range of mining, project development, financing and technical skills in the precious metals and resources industry.

# 2.7 Taxation

The acquisition and disposal of Shares will have tax consequences which will differ depending on the individual financial affairs of each prospective investor. Prospective investors in the Company are therefore urged to obtain independent financial advice about the consequences of acquiring Shares under the Offer from a taxation perspective. To the maximum extent permitted by law, the Company, its officers and each of their respective advisers accept no liability or responsibility with respect to the taxation (or other) consequences of subscribing for Shares under this Prospectus.

# 2.8 Dividend Policy

The extent, timing and payment of dividends in the future (if any) will be determined by the Directors based on a number of factors, including the Company's future financial performance, position and prospects.

At the Prospectus Date, the Company does not expect that it will declare or pay any dividends for the foreseeable future. However, it is the aim of the Company that, in the longer term, its financial performance, position and prospects will enable the payment of dividends.

Any future determination as to the payment of dividends by the Company will be at the sole discretion of the Directors and will depend on the financial condition of the Company at the relevant time, future capital requirements as well as the requirements of the Corporations Act in relation to the declaration and payment of dividends. No assurance in relation to the payment of dividends or franking credits attaching to dividends can be given by the Company.

# 2.9 Corporate Social Responsibility

The Company recognises the importance of managing and developing human capital and that a positive work environment would attract, motivate and retain talent. The Company is an equal opportunity employer that adopts fair employment practices in its recruitment.

# 3. Board, Management and Corporate Governance

# 3.1 Directors' Profiles

The names and details of the Directors in office at the date of this Prospectus are:

# (a) Dennis Karp – Executive Chairman



# (b) Anthony McPaul – Non Executive Director



Mr Anthony McPaul is a senior mining executive with over 35 years' experience in mining operations and mineral processing. Mr McPaul has worked in and led both open cut and underground operations and was most recently the general manager for Newcrest's Cadia Valley Operations, in Orange NSW.

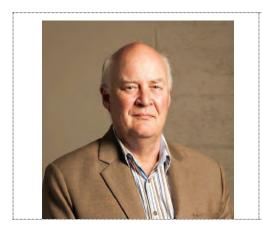
Mr McPaul commenced his career as an automotive engineer and progressed to maintenance and then onto operations management at various companies, including CRA, Denehurst, MIM and more recently Newcrest. He has successfully managed a wide range of operating projects from base through to precious metals in both surface and underground mines and has been directly responsible for all aspects of production and scheduling.

Mr McPaul formally retired from Newcrest in July 2016 and has since devoted his time to non-executive and contract roles. Mr McPaul has represented Newcrest and the resources industry on many boards, such as NSW Minerals Council, NSW Minerals Council Executive Committee, and was the NSW Minerals Council representative on the Mine Safety Advisory Council. Mr McPaul has chaired many of these committees.

Mr McPaul is the current Chairman of the NSW Minerals Council Board and Executive Committee and a member of the recently formed Mineral Industry Advisory Council.

Mr McPaul has formal qualifications in automotive engineering from Goulburn TAFE.

### (c) Nick Lindsay - Non-Executive Director



Dr Nick Lindsay is an experienced mining executive who brings an attractive mix of commercial, technical and academic qualifications, all of which are relevant to the Company. He has worked directly for a range of major and mid-tier mining companies over his career, and led juniors in copper, gold and silver though listings and mergers. Dr Lindsay is a geologist by profession, specialising in process mineralogy, and has postgraduate degrees from the University of Otago (NZ), the University of Melbourne and the University of the Witwatersrand (South Africa). He is a member of the AusIMM and Australian Institute of Geoscientists.

# 3.2 Key Management Personnel

# (a) Haydn Lynch - Chief Operating Officer

Over 25 years of M&A, financial markets and private equity experience with a substantive track record in the origination and execution of domestic and cross-border transactions in various sectors including metals & mining and industrials covering counterparties and assets based in Australia, Africa, Japan, China, and Mongolia.

Senior management experience in successfully creating and leading teams of marketers, and corporate finance professionals in global investment banks including Bankers Trust Australia, Investec Bank, RBC Capital Markets and Southern Cross Equities. Co-founder of Metamor Capital Partners a bespoke investor to start-up technology firms.

Haydn has undergraduate degrees in Mechanical Engineering and Economics from the University of Queensland and a Masters in Commerce from the University of New South Wales.



#### David Power - Operations Manager



David has deep operational experience managing mining assets focussing on plant and infrastructure in both underground and open cut operations. He has worked at many of the major mines in the Central West of NSW including Peak Gold, Cadia and Endeavour mines over a cumulative 30+ year period. David has led maintenance programs and managed major plant shutdowns. He has a strong network of suppliers and personal contacts within the region, which has proved to be invaluable in the efficient and safe operation of the Wonawinta and Mt Boppy projects.

David holds statutory qualifications as mining superintendent, qualified trainer and assessor together with numerous ticketed roles.

# 3.3 ASX Corporate Governance Council Principles and Recommendations

The Company has adopted comprehensive systems of control and accountability as the basis for the administration of corporate governance. The Board is committed to administering the Company's policies and procedures with openness and integrity, pursuing the true spirit of corporate governance commensurate with the Company's needs.

To the extent applicable, the Company has adopted the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (**Recommendations**).

In light of the Company's size and nature, the Board considers that the current Board composition and structure is a cost effective and practical method of directing and managing the Company. As the Company's activities develop in size, nature and scope, the size of the Board and the implementation of additional corporate governance policies and structures will be reviewed.

The Company's main corporate governance policies and practices as at the date of this Prospectus are detailed below. The Company's full Corporate Governance Plan is available in a dedicated corporate governance information section of the Company's website at www.manukaresources.com.au.

#### (a) **Board of Directors**

The Board is responsible for the corporate governance of the Company. The Board develops strategies for the Company, reviews strategic objectives and monitors performance against those objectives. Clearly articulating the division of responsibilities between the Board and management will help manage expectations and avoid misunderstandings about their respective roles and accountabilities.

In general, the Board assumes (amongst others) the following responsibilities:

- (i) appointment, and where necessary, the replacement, of the Executive Director/Managing Director and other senior executives and the determination of their terms and conditions including remuneration and termination;
- (ii) driving the strategic direction of the Company, ensuring appropriate resources are available to meet objectives and monitoring management's performance;
- (iii) reviewing and ratifying systems of risk management and internal compliance and control, codes of conduct and legal compliance;
- (iv) approving and monitoring the progress of major capital expenditure, capital management and significant acquisitions and divestitures;
- (v) approving and monitoring the budget and the adequacy and integrity of financial and other reporting;
- (vi) approving the annual, half yearly and quarterly accounts;
- (vii) approving significant changes to the organisational structure;
- (viii) approving the issue of any shares, options, equity instruments or other securities in the Company (subject to compliance with the ASX Listing Rules if applicable);
- (ix) procuring appropriate professional development opportunities for Directors to develop and maintain the skills and knowledge needed to perform their role as Directors effectively;
- (x) approving the Company's remuneration framework;
- (xi) ensuring a high standard of corporate governance practice and regulatory compliance and promoting ethical and responsible decision making;
- (xii) recommending to shareholders the appointment of the external auditor as and when their appointment or re-appointment is required to be approved by them (in accordance with the ASX Listing Rules if applicable); and
- (xiii) meeting with the external auditor, at their request, without management being present.

The Company is committed to ensuring that appropriate checks are undertaken before the appointment of Directors and senior executives and has in place written agreements with each Director and senior executive which detail the terms of their appointment.

#### (b) **Composition of the Board**

The Board currently consists of Mr Karp, the Executive Chairman (who is not independent), and two (2) non-executive Directors (one of whom is independent). As the Company's activities develop in size, nature and scope, the composition of the Board will be reviewed to ensure the appropriate mix of skills and expertise is present to facilitate successful strategic direction.

#### (c) Identification and management of risk

The Board's collective experience will assist in the identification of the principal risks that may affect the Company's business. Key operational risks and their management will be recurring items for deliberation at Board meetings.

#### (d) Ethical standards

The Board is committed to the establishment and maintenance of appropriate ethical standards.

# (e) Independent professional advice

Subject to prior consultation with the Chairman, the Directors, at the Company's expense, may obtain independent professional advice on issues arising in the course of their duties.

#### (f) Remuneration Committee

Under the Board Charter, the Board is required to establish committees once the Board is of a sufficient size and structure, and the Company's duties are of a sufficient magnitude. The Board currently has only three (3) members and considers that the committee structure would not yet be an effective mechanism. The Board carries out the duties of the remuneration committee.

The Constitution provides that the non-executive Directors will be paid by way of remuneration for their services as Directors such annual fees as the Directors determine, provided the annual fees do not exceed in aggregate the maximum sum that is from time to time approved by Shareholders in a general meeting in accordance with the ASX Listing Rules. The aggregate remuneration fixed by Shareholders is A\$180,000 per annum.

In addition, a Director may be paid special and additional remuneration as the Directors determine if, with the approval of the Directors, a Director performs extra services or makes any special exertions for the benefit of the Company.

Directors are also entitled to be paid reasonable travel and other expenses incurred by them in the course of the performance of their duties as Directors.

The Board reviews and approves the Company's remuneration policy in order to ensure that the Company is able to attract and retain executives and Directors who will create value for Shareholders, having regard to the performance of the Company and its related entities, the performance of the executive and the prevailing remuneration expectations in the market.

The Board is also responsible for reviewing any equity-based plans and other incentive schemes including the appropriateness of performance hurdles and total payments proposed.

### (g) Trading policy

The Board has adopted a policy that sets out the guidelines on the sale and purchase of securities in the Company by its key management personnel (that is, Directors and, if applicable, any employees reporting directly to the Executive Director or Managing Director). The policy generally provides that the written acknowledgement of the Chairman of the Board (or the Board in the case of the Chairman) must be obtained prior to trading.

# (h) **Diversity policy**

The Board values diversity and recognises the benefits it can bring to the organisation's ability to achieve its goals. Accordingly, the Company has set in place a diversity policy. This policy outlines the Company's diversity objectives in relation to gender, age, cultural background and ethnicity. The Board may establish measurable objectives for achieving diversity, and is responsible for assessing annually both the objectives, and the Company's progress in achieving them. The Board is committed to workplace diversity, with a particular focus on supporting the representation of women at the senior level of the Company and on the Board.

# (i) Audit and Risk Committee

The Board carries out the duties of the audit and risk committee, as the Board considers it is not yet of a sufficient size and structure to gain any benefit from separate committees. The Audit and Risk Committee Charter includes, but is not limited to, monitoring and reviewing any matters of significance affecting financial reporting and compliance, the integrity of the financial reporting of the Company, the Company's internal financial control system and the Company's risk management systems, the identification and management of business, environmental and social risk and the external audit function.

# (j) External audit

The Company in general meetings is responsible for the appointment of the external auditors of the Company, and the Board from time to time will review the scope, performance and fees of those external auditors.

#### (k) Internal audit

The Company does not have an internal audit function. The Board considers the financial control function in conjunction with its risk management policy is sufficient for a Company of its size and complexity.

# 3.4 Departures from Recommendations

Following Admission, the Company will be required to report any departures from the Recommendations in accordance with ASX Listing Rules 4.7.3.

The Company's compliance and departures from the Recommendations as at the date of this Prospectus are detailed in the table below.

Principles and Recommendations	Explanation for Departure
1.5 A listed entity should set measurable objectives for achieving gender diversity	The Company has a diversity policy which is published in the Corporate Governance Plan on the Company's website. The Board may set measurable objectives for achieving the objectives set out in the policy, including gender diversity, and if objectives are set, the Company must annually review and report on progress against those objectives. The Board has not set measurable objectives but will review the appropriateness of setting objectives as the Company develops in size and complexity. The Board is committed to workplace diversity, with a particular focus on supporting the representation of women at the senior level of the Company and on the Board.
2.1 The board of a listed entity should have a nomination committee.	Under the Board Charter, the Board is required to establish committees once the Board is of a sufficient size and structure, and the Company's duties are of a sufficient magnitude. The Board currently has only three (3) members and considers that the committee structure would not yet be an effective mechanism.

Principles and Recommendations	Explanation for Departure		
	The full Board undertakes the role of the nomination committee and considers all the matters as set out in the Company's Nomination Committee Charter.		
2.4 The majority of the board should be independent directors	The Board considers that Mr Karp (Executive Chairman) and Mr Lindsay (non-executive Director) are not independent directors as Mr Karp is an executive of the Company and Mr Lindsay has been employed in an executive role with the Company within the last three (3) years. The Board considers that the Company is not currently of a size, nor are its affairs of such complexity, to justify the expense of the appointment of additional non-executive Directors to satisfy this Recommendation.		
2.5 The chair of the Board should be an independent director and should not be the same person as the CEO	Mr Karp is the executive Chairman of the Board and as such is acting as the CEO and the chair of the board. The Board considers that Mr Karp is the most appropriate person to act as the CEO of the Company at this stage in its development. The Board will keep the matter under review and aims to comply with this Recommendation as soon as it is appropriate.		
3.3 A listed entity should have a disclose a whistleblower policy	The Board is responsible for overseeing procedures for whistleblower protection pursuant to the Audit and Risk Committee Charter and considers that the Company is currently of a size, and its affairs of such complexity, that a separate whistleblower policy is not yet necessary. The spirit of a whistleblower policy is enshrined in the Company's Corporate Code of Conduct, in which employees are encouraged to raise any matters of concern in good faith without fear of retribution.		
3.4 A listed entity should have an anti-bribery and corruption policy	The Board considers that the Company is currently of a size, and its affairs of such complexity, that a separate anti-bribery and corruption policy is not yet necessary. The basic tenets of such a policy are included in the Company's Corporate Code of Conduct and the Board is informed of any material breaches of the Code.		
4.1 The board of a listed entity should have an audit committee.	Under the Board Charter, the Board is required to establish committees once the Board is of a sufficient size and structure, and the Company's duties are of a sufficient magnitude. The Board currently has only three (3) members and considers that the committee structure would not yet be an effective mechanism.		
	The full Board undertakes the role of the audit committee and considers all the matters as set out in the Company's Audit and Risk Committee Charter.		
6.4 A listed entity should ensure that all substantive resolutions at a shareholder meeting are decided by a poll	The Board considers that there is no significant benefit of calling a poll on substantive resolutions rather than voting by a show of hands as a matter of course given the practice of the Company at general meetings of Shareholders to display, at the time of voting for each resolution, the proxy votes received by the Company so that Shareholders are fully informed as to the level of support for each resolution.		
7.1 The board of a listed entity should have a risk committee.	Under the Board Charter, the Board is required to establish committees once the Board is of a sufficient size and structure, and the Company's duties are of a sufficient magnitude. The Board currently has only three		

Principles and Recommendations	Explanation for Departure	
	(3) members and considers that the committee structure would not yet be an effective mechanism.	
	The full Board undertakes the role of the risk committee and considers all the matters as set out in the Company's Audit and Risk Committee Charter.	
	The Board is ultimately responsible for risk oversight and risk management. Discussions on the recognition and management of risks are regularly considered by the Board.	
8.1 The board of a listed entity should have a remuneration committee	Under the Board Charter, the Board is required t establish committees once the Board is of a sufficient siz and structure, and the Company's duties are of sufficient magnitude. The Board currently has only thre (3) members and considers that the committee structur would not yet be an effective mechanism.	
	The full Board undertakes the role of the remuneration committee and considers all the matters as set out in the Company's Remuneration Committee Charter.	

# 4. **Financial Information**

# 4.1 Introduction

The financial information for Manuka contained in this Section 4 includes:

- summary audited historical consolidated Statement of Profit or Loss and Other Comprehensive income for the year ended 30 June 2018 (FY2018) and year ended 30 June 2019 (FY2019);
- summary reviewed historical consolidated Statement of Profit or Loss and other Comprehensive income for the six months ended 31 December 2019 (1HY20) and comparative period for the six months ended 31 December 2018 (1HY19);
- summary audited historical consolidated Statement of Cash Flows for FY2018 and FY2019;
- summary reviewed historical consolidated Statement of Cash Flows for 1HY20 and 1HY19; and
- reviewed historical and pro forma consolidated statements of financial position as at 31 December 2019 and the associated details of the pro forma adjustments, (together, the **Historical Financial Information**).

The Historical Financial Information should be read together with the other information contained in this Prospectus, including:

- management's discussion and analysis set out in this Section 4;
- the risk factors described in Section 7;
- the description of the use of the proceeds of the Offer described in Section 1;
- the Independent Limited Assurance Report, set out in Section 5; and
- the indicative capital structure described in Section 1.

Investors should note that past performance is not an indication of future performance.

# 4.2 Basis of preparation and presentation of the Historical Financial Information

The Directors of Manuka are responsible for the preparation and presentation of the Historical Financial Information.

The Historical Financial Information has been prepared in accordance with the recognition and measurement principles of Australian Accounting Standards adopted by the Australian Accounting Standards Board which are consistent with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board and Manuka's accounting policies. Manuka's significant accounting policies are described in Appendix A. The accounting policies of Manuka have been consistently applied throughout the periods presented, with the exception of that set out in Section 4.4.

All amounts disclosed in Section 4 and the Appendices are presented in Australian dollars and, unless otherwise noted, are rounded to the nearest thousand. Some numerical figures included in this Prospectus have been subject to rounding adjustments. Any differences between totals and sums of components in figures or tables contained in this Prospectus are due to rounding.

The Historical Financial Information (other than the pro forma adjustments to the historical statement of financial position as at 31 December 2019 and the results of those adjustments) has been derived from the audited general purpose financial reports of Manuka for FY2018 and FY2019, and reviewed general purpose financial report for H1FY20. The general purpose financial reports of Manuka for:

- FY2018 were audited;
- FY2019 were audited; and
- 1HY20 were reviewed

by Grant Thornton Audit Pty Ltd in accordance with Australian Auditing Standards.

The audit opinion issued to the Directors in relation to FY2018 contained a disclaimer of opinion in relation to the Group's<sub>38</sub> ability to continue as a going concern. The FY2019 audit opinion issued to the Directors was unqualified but contained an emphasis of matter regarding the existence of a material uncertainty which may cast doubt on the Group's ability to continue as a going concern. The review conclusion issued to the Directors in relation 1HY20 was unqualified but contained an emphasis of matter regarding the existence of a material uncertainty which may cast doubt on the Directors in relation 1HY20 was unqualified but contained an emphasis of matter regarding the existence of a material uncertainty which may cast doubt on the Group's ability to continue as a going concern.

The Historical Financial Information is presented in an abbreviated form and does not contain all of the disclosures, statements or comparative information required by Australian Accounting Standards applicable to financial reports prepared in accordance with the Corporations Act 2001.

The Historical Financial Information has been reviewed in accordance with the Australian Standard on Assurance Engagements *ASAE 3450 Assurance Engagements involving Fundraising and/or Prospective Financial Information* by the Grant Thornton Corporate Finance Pty Ltd as set out in the Independent Limited Assurance Report in Section 5. Investors should note the scope and limitations of the Independent Limited Assurance Report.

The Historical Financial Information has been prepared for the purpose of the Offer.

# 4.3 Non IFRS financial measures

Manuka uses certain measures to manage and report on its business that are not recognised under IFRS. These measures are collectively referred to as "non IFRS financial measures". These non IFRS financial measures do not have a prescribed definition under IFRS and therefore may not be directly comparable to similarly titled measures presented by other entities. These should not be construed as an indication of, or an alternative to, corresponding financial measures determined in accordance with the IFRS. Although Manuka believes these non IFRS financial measures provide useful information to users in measuring the financial performance and condition of the business, investors are cautioned not to place undue reliance on any non IFRS financial measures included in this Prospectus.

In particular the following non IFRS financial data is included:

- EBITDAX which means earnings before interest, taxation, depreciation & amortisation and exploration expenditure and is expressed before share based payments;
- EBITDA which means earnings before interest, taxation, depreciation & amortisation, and is expressed before and after share-based payments;
- EBIT which means earnings before interest and taxation;
- NLBT which is net loss before tax; and
- NLAT which is net loss after tax

Potential investors should also refer to the description of the key financial terms set out in Section 2.5.

# 4.4 Changes in Accounting Standards and Accounting Policies

AASB 9 Financial Instruments and AASB 15 Revenue from contracts with customers became mandatorily effective on 1 January 2018. AASB 16 Leases has been published but is not mandatory for the Historical Period. The nature and effect of changes arising from these standards are summarised below.

# AASB 9 Financial Instruments

38 A reference to "Group" in this Section 4 is a reference to the Company together with its wholly owned subsidiary, Mt Boppy Resources.

AASB 9 Financial instruments replaced AASB 139 Financial Instruments: Recognition and Measurement requirements. It makes major changes to the previous guidance on the classification and measurement of financial assets and introduces an expected credit loss model for impairment of financial assets. When adopting AASB 9, the Group has applied transitional relief and elected not to restate prior periods. There was no impact on adoption of the new accounting standard.

# AASB 15 Revenue from Contracts with customers

AASB 15 *Revenue from Contracts with Customers* replaces AASB 118 and covers contracts for goods and services. AASB 15 is based on the principle that revenue is recognised when control of a good or service transfers to a customer so the notion of control replaces the existing notion of risks and rewards.

The Group adopted AASB 15 from 1 July 2018 but does not derive any revenue from its mining activities at this stage, as such has not recognised any operating revenue. Eventually when the Group starts generating revenue, revenue will be recognised in accordance with AASB 15. There is no impact from the transition from AASB 118 to AASB 15.

# AASB 16 Leases

The Group adopted AASB 16 from 1 July 2019, which replaces AASB 117 Leases and some lease-related Interpretations. AASB 16:

- Requires all leases to be accounted for 'on-balance sheet' by lessees, other than short-term and low value asset leases.
- Provides new guidance on the application of the definition of lease and on sale and lease back accounting
- Largely retains the existing lessor accounting requirements in AASB 117
- Requires new and different disclosures about leases

On adoption of AASB 16, the Group recognises on its balance sheet the minimum lease payments under its lease arrangements as 'right-of-use assets' with a corresponding financial lease liability. The financial liability is adjusted for lease prepayments, lease incentives received, initial direct costs incurred and an estimate of any future restoration, removal or dismantling costs. Straight-line operating lease expense recognised previously recognised under AASB 117 is replaced with a depreciation charge for the leased asset (included in operating costs), and an interest expense on the recognised lease liability (included in finance costs). There was no impact of adoption of AASB 16 as the Group did not have any long-term leases as at and during the reporting period.

#### Correction of prior period errors

During the year ended 30 June 2019, the Group undertook a review of a mandate signed between Manuka and Gleneagle Securities (Aust) Pty Ltd on the 15th of April 2017 and found that the Group had to allot and issue 3,023,353 shares to Gleneagle as a result of services rendered to the Group. As the shares were only issued in September 2019, this transaction had never been recorded. Given the services were rendered during the 2017 financial year, this transaction should have been recorded at that date. This error has been rectified in the FY2019 financial statements by crediting 'other contributed equity' by \$296,170 and debiting 'accumulated losses' for the same amount. This restatement does not impact the statement of profit or loss nor total equity as at 30 June 2019 or 30 June 2018.

# 4.5 Historical consolidated statement of profit and loss and other comprehensive income

The table below presents the summary audited and reviewed historical consolidated statement of Profit and Loss and other Comprehensive Income for FY2018, FY2019, 1HY20 and 1HY19.

# Table 4.1 Historical consolidated Statement of Profit or Loss and other Comprehensive Income

	Audited	Audited	Reviewed	Reviewed
\$'000	Year ended 30 June 2018	Year ended 30 June 2019	Six months ended 31 December 2019	Six months ended 31 December 2018
Revenue	-	-	2	-
Operating costs	(1,212)	(1,080)	(650)	(348)
Employment costs	(613)	(289)	(646)	(143)
EBITDAX	(1,825)	(1,369)	(1,294)	(491)
Exploration expenditure	(593)	(370)	(301)	(359)
EBITDA before non-cash expense	(2,418)	(1,739)	(1,595)	(850)
Fair value adjustment	-	(1,533)	(289)	-
Share based payments	(334)	150	-	150
EBITDA	(2,752)	(3,142)	(1,884)	(700)
Depreciation	(35)	(30)	(18)	(15)
EBIT	(2,787)	(3,172)	(1,902)	(715)
Interest expense	(1,557)	(2,256)	(1,012)	(571)
Profit/(loss) before tax	(4,344)	(5,428)	(2,915)	(1,286)
Income tax expense	-	-	-	-
Profit/(loss) after tax	(4,344)	(5,428)	(2,915)	(1,286)

#### Description of key financial terms

Set out below is a description of the key financial terms used in the presentation of the Historical Financial Information:

- 1. **Revenue:** No revenue has been derived across the Historical Period except for immaterial amount of miscellaneous income;
- Operating expenses: Operating expenses relate to all indirect expenditures that is not attributable to exploration activities. These expenses include legal fees, corporate advisory costs, indirect employee costs, administration costs, travel costs, and occupancy costs;
- 3. **Employment costs:** Employment costs comprises of wages & salaries and superannuation;
- 4. **Exploration expenditure:** Exploration expenses refers to site costs such as contractors, rents, rates, tenement renewal, fuel, repairs & maintenance, licences and other costs which are directly incurred in relation to the tenement;
- 5. Non cash expenses:
  - **a.** Fair value adjustment: Fair value adjustment relates to the loss recognised on the acquisition of Mt Boppy;
  - **b.** Share based payments: Share based payments represents the non-cash expense attributed to vested options and expense to date for options that have not yet vested (as the expense is spread over the vesting period). The expense is determined using a Black Scholes valuations of the options. The options have

been issued to both employees and non-employees of the Company. The options do not entitle the holder to participate in any share issues of the Company.

- 6. Depreciation: refers to the depreciation of motor vehicles and computers;
- 7. Interest expense: refers to the interest expenses incurred on borrowings; and
- 8. **Income tax expense:** represents the amount of tax attributable to its taxable profit.

# 4.6 General factors affecting the historical operating results of Manuka

Below is a discussion of the main factors which affected Manuka's operations and relative financial performance in FY2018, FY2019 and H1FY20, which Manuka expects may continue to affect it in the future. The discussion of these general factors is intended to provide a summary only and does not detail all factors that affected Manuka's historical operating and financial performance, nor everything which may affect Manuka's operations and financial performance in the future.

# Management discussion and analysis of the Historical statement of profit and loss and other comprehensive income

Manuka is at a pre revenue stage and as such has not derived any revenue, with the exception of immaterial miscellaneous income. As described in Section 2 the Group commenced production and processing the ore stockpile in April 2020.

Operating expenses include overhead costs such as professional fees, director fees, insurance, office costs, insurance and forex gains & losses. The increase in operating expenses between 1HY19 to 1HY20 is attributable to legal and consulting fees to establish a secured debt facility (financing facilities discussed further in Section 4.10 and 4.11). Reduced expenditures were incurred in 1HY19 which coincided with the care and maintenance program of the tenement and a general decline in operations of the Manuka silver project prior to the acquisition of Mount Boppy. The directors also agreed to a reduction in their compensation after FY18 which reduced operating costs further.

Employment costs comprises a wages & salaries, superannuation. Employment costs decreased from FY18 to FY19 due to the reduction in headcount under the care & maintenance program of the tenement. In H1FY20, employment costs increased due to additional headcount and director fees increasing from July 2019.

Exploration expenditure consist of contractor costs, rents, rates, tenement renewal, fuel, repairs & maintenance, licences and other costs which are incurred directly in relation to the tenement. Although operations were increasing in scale in 1HY20, the project had been deemed to be commercially viable which meant that exploration expenditures were able to capitalised as development assets in accordance with IFRS.

Non cash expenditures relate to the movements in the share based payment expense which have been valued in accordance with the Black Scholes valuation method. The increase in FY2019 is a result of a fair value expense incurred in relation to the acquisition of Mt Boppy. The minor expense incurred in 1HY20 is in relation to a movement in derivative liability inherent within the options issued.

Depreciation relates to the depreciation expense incurred for motor vehicles and computers. It is noted that no depreciation were recorded for Plant & Equipment as they were not in use for the Historical Period. Interest expense relates to the payment and accrual of interest for borrowings.

# 4.7 Historical and pro forma consolidated statement of financial position

# 4.7.1 Consolidated statement of financial position

The table below sets out the reviewed historical consolidated statement of financial position as at 31 December 2019, the pro forma adjustments that have been made to the reviewed consolidated statement of financial position (further described in Section 4.7.2 and the pro forma consolidated statement of financial position as at 31 December 2019. The pro forma consolidated statement of financial position is provided for illustrative purposes only and is not represented as being necessarily indicative of Manuka's view of its future financial position.

# Table 4.2 Historical consolidated Statement of Financial Position

As at 31 December 2019	Ref	Reviewed \$'000	Minimum Pro forma adjustments \$'000	Pro forma minimum subscription \$'000	Maximum Pro forma adjustments \$'000	Pro forma maximum subscription \$'000
Assets						
Cash and cash equivalents	4.7.3	1,828	4,136	5,964	6,002	7,830
Trade and other receivable		510	50	560	59	569
Prepayments		342	-	342	-	342
Inventory		541	-	541	-	541
Total current assets		3,221	4,186	7,407	6,061	9,282
Development assets		4,765	-	4,765	-	4,765
Exploration assets		106	-	106	-	106
Property, plant & equipment		7,410	-	7,410	-	7,410
Other financial assets		6,129	-	6,129	-	6,129
Total non-current assets		18,410	-	18,410	-	18,410
Total assets		21,631	4,186	25,817	6,061	27,692
Liabilities						
Trade and other payables		2,650	(200)	2,450	(200)	2,450
Provisions		58	-	58	-	58
Borrowings		9,275	(5,887)	3,388	(5,887)	3,388
Other liabilities		289	(289)	-	(289)	-
Total current liabilities		12,272	(6,376)	5,896	(6,376)	5,896
Borrowings		20,157	(867)	19,290	(867)	19,290
Provisions		5,180	-	5,180	-	5,180
Total non-current liabilities		25,337	(867)	24,470	(867)	24,470
Total liabilities		37,609	(7,243)	30,366	(7,243)	30,366
Net assets		(15,978)	11,429	(4,549)	13,304	(2,674)
Share capital	4.7.4	296	12,127	12,423	13,993	14,289
Share option reserve	4.7.4	-	1,246	1,246	1,246	1,246
Accumulated losses	4.7.4	(16,274)	(1,944)	(18,218)	(1,935)	(18,209)
Total equity		(15,978)	11,429	(4,549)	13,304	(2,674)

# 4.7.2 Description of pro forma adjustments

The following transactions and events had not occurred prior to 31 December 2019, but have taken place or will take place on or before the Allotment Date. The pro forma financial information in this Section 4.7.2 assumes that they occurred on or before 31 December 2019:

The following subsequent event transactions have occurred:

- **4.7.2.1** The issue of 2,400,000 shares at \$0.08 per share in respect of the existing amount outstanding to Mining Associates for past services rendered (in lieu of a cash payment) amounting to \$0.2 million. This occurred in February 2020;
- **4.7.2.2** A capital raise of 6,153,846 shares at \$0.08 per share, for a consideration of \$0.5 million issued to Hargreaves Singapore in February 2020;
- **4.7.2.3** Additional loan facility for \$1.5 million secured from TransAsia in March 2020. In connection to this 2,500,000 shares were issued to Hargreaves Singapore valued at \$0.2 per share in respect of service rendered with helping to secure the additional loan facility. This share issue has been capitalised against the borrowing;
- **4.7.2.4** Extension facility from TA Investments amounting to \$1.25 million drawn down in April 2020 and interest accrued on the first quarter amounting to a further \$0.74 million. In connection to this, 3,250,000 options were issued to Hargreaves Singapore on 17 April 2020 at an exercise price of \$0.25 per share upon IPO with a 3 year expiry period;
- **4.7.2.5** 8,000,000 options were issued to Directors on 17 April 2020 at an exercise price of \$0.25 per share upon IPO with a 3 year expiry period for past services rendered;
- 4.7.2.6 Draw down of the NAB Covid-19 funding amounting of \$0.25 million in May 2020;
- **4.7.2.7** Receipt of a prepayment in relation to the sale of gold ore to Cobar Pty Ltd amounting to \$0.95 million. There is a call and put option in Manuka's favour in relation to the agreement with Manuka intending on repaying the amount in cash prior to the Completion of the Offer;
- **4.7.2.8** Loans payable to Rescap Investments and Gleneagle on the books of Mt. Boppy amounting to \$3.5 million will be converted to equity resulting in the issue of 17,400,000 shares at \$0.2 per share;
- **4.7.2.9** Deferral of the Core Debt Facility repayments due in November 2020 to February 2021 in line with the amendment to the repayment terms agreed on 15 May 2020;
- **4.7.2.10** Interest to be accrued on the TA loan facility at 25% on the principal and 18% on the interest component up to the date of scheduled repayment. Total interest amounts to \$0.33 million;
- **4.7.2.11** Repayment of the TA facility, including accrued interest, on 11 June 2020;
- **4.7.2.12** Repayment of prepayment received from Cobar Pty Ltd amounting to \$0.95 million on 30 June 2020;
- **4.7.2.13** Options held by MCP have been agreed to be settled by way of issue of 679,348 shares at the IPO price of \$0.2 per share for an amount equivalent to the difference between the exercise price of 18.4 cents per share and 20 cents per share plus an additional 25% in accordance with the terms of the option agreement;
- **4.7.2.14** Options held by Gleneagle have been agreed to be settled by way of cash payout for an amount equal to the difference between the exercise price of 18.4 cents per share and 20 cents per share plus an additional 25% in accordance with the terms of the option agreement. The fair value of the connected derivative liability amounting to \$0.3 million as at 31 December 2019 is derecognised with the cessation of these options;
- **4.7.2.15** Interest to be accrued on convertible notes from 1 January 2020 to Offer date amounting to \$0.47 million;
- **4.7.2.16** Conversion of the principal amount outstanding on the convertible notes amounting to \$3.2 million into 21,265,752 shares. The accrued interest on the convertible notes of \$1.76 million is to be paid in cash out of the IPO proceeds;

In addition, the following pro forma transactions and events will take place pursuant to this Prospectus:

- **4.7.2.17** The completion of the Minimum Offer which involved the issue of 25,000,000 ordinary shares at \$0.20 per share amounting to \$5.0 million. The Maximum Offer involves issue of 35,000,000 ordinary shares at \$0.20 per share for a total amount of \$7.0 million (Maximum Offer); and
- **4.7.2.18** Expenses associated with the Offer on a minimum subscription basis (including advisory, legal, accounting and administrative expenses) amount to \$1.5 million with a total amount of \$0.9 million being capitalised to share capital and \$0.5 million being expensed. A further \$50,000 will be paid by the Company but reclaimable under the GST RITC provisions. Expenses associated with the Offer on a maximum subscription basis amount to \$1.6 million, of which \$1.05 million is to be capitalised, \$0.5 million is to be expensed and the remaining \$59,000 is reclaimable under the GST RITC provisions. Included in the costs of the Offer is \$0.6 million of non-cash expenses through the issue of options to Bell Potter.

A deferred tax asset has not been recognised in relation to the capitalised Offer costs due to the uncertainty surrounding the flow of economic benefits that will flow in future periods.

# 4.7.3 Calculation of the pro forma cash position

The table below sets out the reviewed cash and cash equivalents of Manuka as at 31 December 2019, the pro forma adjustments that have been made to the reviewed cash and cash equivalents (further described in Section 4.7.2) and the Group's pro forma cash and cash equivalents as at 31 December 2019. The numbers in the 'Pro forma adjustment' column correspond to the numbering of the pro forma transactions set out in 4.7.2 above. Manuka expects that it will have sufficient cash to funds its operational requirements and business objectives following the Offer.

	Pro forma	Minimum	Maximum
	adjustment	Pro forma	Pro forma
Reviewed cash and cash equivalents at 31 December 2019		1,828	1,828
Pro forma transactions:			
Hargreaves share issue	4.7.2.2	500	500
TransAsia additional Ioan	4.7.2.3	1,500	1,500
Extension facility drawdown from TA Investments	4.7.2.4	1,993	1,993
Receipt of NAB facility	4.7.2.6	250	250
Receipt of pre-sale gold funding	4.7.2.7	950	950
Repayment of TA facility drawdown	4.7.2.11	(2,327)	(2,327)
Repayment of gold prepayment to Cobar Pty Ltd	4.7.2.12	(950)	(950)
Gleneagle options settled in cash	4.7.2.14	(103)	(103)
Payment of accrued interest on convertible notes	4.7.2.16	(1,761)	(1,761)
Proceeds from the Offer	4.7.2.17	5,000	7,000
Offer costs remaining to be paid	4.7.2.18	(916)	(1,050)
Pro forma cash and cash equivalents		5,964	7,830

# 4.7.4 Calculation of the pro forma capital structure

The pro forma capital structure shown below is based on the following adjustments:

	Pro forma adjustment	Shares No.	Share capital \$'000	Accumulated losses \$'000	Share based payment reserve \$'000	Net assets \$'000
As at 31 December 2019		308,862,000	296	(16,274)	- + 000	(15,978)
				(::;=::;)		(10,010)
Subsequent events						
Shares issued to Mining Associates	4.7.2.1	2,400,000	200	-	-	200
Shares issued to Hargreaves Singapore	4.7.2.2	6,153,846	500	-	-	500
Share consolidation (1.84:1)		172,508,612	996	(16,274)	-	(15,278)
Shares issued to Hargreaves Singapore for draw down of TransAsia facility	4.7.2.3	2,500,000	500	_	_	500
Options issued to Hargreaves Singapore for extension of TA	4.7.2.4			(102)	100	
facility Options issued to	4.7.2.5	-	-	(192)	192	-
Directors Gleneagle and		-	-	(472)	472	-
Rescap Investments loans convert to equity	4.7.2.8	17,400,000	3,480	-	-	3,480
Accrual of interest on TA facility	4.7.2.10	-	-	(333)	-	(333)
MCP option holders issued shares	4.7.2.13	679,348	136	(136)	-	-
Gleneagle option holders settled in cash and derecognition of derivative liability	4.7.2.14	_	-	186	_	186
Total (at Prospectus date)		193,087,960	5,112	(17,221)	664	(11,445)
Accrual of interest on convertible notes and conversion of convertible notes principal to shares (accrued interest paid in cash)	4.7.2.15 & 4.7.2.16	21,265,752	3,231	(470)	-	2,761
Pre Offer capital structure		214,353,712	8,343	(17,691)	664	(8,684)
Minimum Offer						
Offer	4.7.2.17	25,000,000	5,000	-	-	5,000
Offer costs	4.7.2.18		(920)	(527)	582	(865)
Pro forma capital structure		239,353,712	12,423	(18,218)	1,246	(4,549)
Maximum Offer		, ,	, -		, -	
Offer	4.7.2.17	10,000,000	2,000	-	-	2,000
Offer costs	4.7.2.18		(134)	9	-	(125)
Pro forma capital structure		249,353,712	14,289	(18,209)	1,246	(2,674)

# 4.8 Historical statement of cash flows

The table below presents the summary audited/re-stated historical statement of cash flows for FY2018, FY2019, 1HY20 and 1HY19.

	Audited	Audited	Reviewed	Reviewed
\$'000s	Year ended 30 June 2018	Year ended 30 June 2019	Six months ended 31 December 2019	Six months ended 31 December 2018
Operating cash flow				
EBITDA	(2,752)	(3,142)	(1,884)	(700)
Non cash expenses	334	1,403	289	(150)
Interest paid	(1,006)	169	(1,012)	(571)
Movement in working capital	836	1,116	(977)	648
Movement in other assets and liabilities	76	(195)	(574)	(491)
Net operating cash flows	(2,515)	(649)	(4,159)	(1,264)
Investing activities				
Increase in development assets	(46)	-	(1,283)	-
Increase in exploration assets	-	-	(106)	-
Increase in PP&E	-	-	(4,722)	-
Net investing cash flows	(46)	-	(6,111)	-
Financing activities				
Increase in Borrowings	2,572	636	12,098	1,394
Net financing cash flows	2,572	636	12,098	1,394
Net change in cash and cash equivalents held	11	(13)	1,828	131
Cash and cash equivalents at the beginning of the financial year	2	13	-	13
Cash and cash equivalents at the end of the financial year	13	-	1,828	144

# Management discussion and analysis of the Historical Cash Flows

Manuka has historically generated negative cash flow from operations, which together with the capital expenditure of plant & equipment and development assets has been historically funded through borrowings from external financiers and related party loans.

In 1HY20, a debt facility was secured from TransAsia for USD13 million (c. \$18.8 million) and the outstanding related party loans were subordinated to the Core Debt Facility. Refer to Section 4.10 for further details.

The capital expenditure is mainly in relation to capitalisation of development and exploration expenses incurred once the project was deemed commercially viable and additions to plant & equipment in order to prepare the processing plant for production.

# 4.9 Commitment & contingencies

As at 31 December 2019 the Company had commitments in relation to the tenements, as summarised below:

\$'000s	Year 1	Year 2	Year 3
Annual commitment	954	835	335

# 4.10 Indebtedness and Capitalisation

The below table sets out the indebtedness and capitalisation of Manuka as at 31 December 2019, before and following the completion of the Offer:

	Reference	Reviewed	
	As at 31 December 2019	After completion of minimum Offer	After completion of maximum Offer
\$'000s	\$'000	\$'000	\$'000
Cash and cash equivalents	1,828	5,964	7,830
Financial liabilities	(29,431)	(22,678)	(22,678)
Total net indebtedness	(27,603)	(16,714)	(14,848)
Contributed equity	296	12,423	14,289
Shared based payment reserve	-	1,246	1,246
Accumulated losses	(16,274)	(18,218)	(18,209)
Total equity	(15,978)	(4,549)	(2,674)
Total capitalisation and indebtedness	(43,581)	(21,263)	(17,522)

# 4.11 Description of financing facilities

Following completion of the Offer the below facilities will remain drawn down and will be repaid through operational cash flows as the mine has commenced production and processing the stockpile. Refer to Section 8 for the summaries the material agreements.

Lender	Amount due at Prospectus date \$'000	Terms	Repayment terms
Hindsight Trading	397	Subordinated to Core Debt Facility	Earlier of 80 years or pay out of Core Debt Facility
Rescap Investments	1,989	Subordinated to Core Debt Facility	Earlier of 80 years or pay out of Core Debt Facility
Gleneagle Securities	489	Subordinated to Core Debt Facility	Earlier of 80 years or pay out of Core Debt Facility
Core Debt Facility (US\$ 14 million)	20,053		<ul> <li>i. October 2020 – \$3.9 million (excl. interest)</li> <li>ii. February 2021 – \$7.8 million (excl. interest)</li> <li>iii. April 2021 – \$10.15 million (excl. interest)</li> </ul>
TA Investments	2,166		Repayable in June 2020
NAB loan	250		Repayable in 6 monthly instalments from November 2020 onwards
Cobar Pty Ltd	950		Repayable in June 2020
Total drawn facilities at lodgement date (excluding borrowing costs)	26,294		
Loans paid subsequent to Prospectus date	(2,166)		
Repayment of funding from Cobar Pty Ltd	(950)		
Capitalised borrowing costs	(500)		
Total debt at Completion of the Offer	22,678		

# **Debt Maturity profile**

The table below sets out the repayment profile of the indebtedness outstanding following the Offer

Period amount due	Amount due \$'000
October 2020 – TransAsia	3,581
November 2020 – NAB	43
December 2020 – NAB	43
January 2021 – NAB	43
February 2021 – TransAsia & NAB	7,205
March 2021 – NAB	43
April 2021 – TransAsia and NAB	9,353
April 2021 – others	2,867
Unamortised borrowing cost in relation to Hargreaves share issue	(500)
Total	22,678

Note 1: The amount due on the Core Debt Facility in October 2020, February 2021 and April 2021 represent the AUD equivalent of the USD amount repayable in respect of the principal loan amount including accrued interest up to 31 December 2019.

The other loans due in April 2021 relate to the outstanding on Gleneagle Securities, Rescap Investments and Hindsight Trading which have been subordinated to the Core Debt Facility and are repayable in 80 years or after payout of the Core Debt Facility, whichever is earlier.

As at the Prospectus date, the below facilities will remain undrawn:

Lender	Undrawn amount \$'000	Terms
TA Investments	1,250	The Company has entered into an extension facility agreement with TA Investments for a total facility amount of \$3.25 million, of which \$1.25 million was drawn in April 2020 and the accrued interest on the first quarter was drawn in May 2020 amounting to \$0.75 million, together repayable in June 2020.
Soothgrove Pty Ltd	2,000	Soothgrove has agreed to provide continued support to Manuka for the foreseeable future (either individually or via syndication) for amounts up to \$2.0 million should this be required, on commercial terms to be mutually agreed.

# 4.12 Dividend policy

No assurance can be given by the Company or its Directors about the payment of any dividend or distribution, or the level of franking on any such dividend. Refer to Section 2.8 for further information.

# 5. Investigating Accountant's Report



The Directors Manuka Resources Ltd Level 4 Grafton Bond Building 201 Kent Street Sydney, NSW, 2000

22 May 2020

#### **Dear Directors**

#### **INDEPENDENT LIMITED ASSURANCE REPORT AND FINANCIAL SERVICES GUIDE**

#### Introduction

Grant Thornton Corporate Finance Pty Limited ("Grant Thornton Corporate Finance") has been engaged by Manuka Resources Limited. ("Manuka" or "the Group") to prepare this report for inclusion in the prospectus (the "Prospectus") to be issued by the Group on or about 22 May 2020 in respect of the initial public offering of fully paid ordinary shares in the Group (the "Offer") and admission to the Australian Securities Exchange.

Grant Thornton Corporate Finance Pty Ltd ("Grant Thornton Corporate Finance") holds an Australian Financial Services Licence (AFS Licence Number 247140). This report is both an Independent Limited Assurance Report, the scope of which is set out below, and a Financial Services Guide, as attached at **Appendix A**.

Expressions defined in the Prospectus have the same meaning in this report, unless otherwise specified.

#### Scope

Grant Thornton Corporate Finance has been engaged by the Directors to perform a limited assurance engagement in relation to the following historical financial information of the Group:

#### Statutory Historical and Pro Forma Historical Financial Information

The statutory historical and pro forma historical financial information of the Group, as set out in the Prospectus comprises:

#### Statutory Historical Financial Information

- the historical consolidated statement of profit and loss and other comprehensive income for the years ended 30 June 2018 (FY2018) and 30 June 2019 (FY2019) and six months ended 31 December 2019 (1HY20) together with the 31 December 2018 comparative financial information which are included in Section 4.5 of the Prospectus;
- the historical consolidated cash flow information for FY2018 and FY2019 and the six months ended 1HY20 together with the 31 December 2018 comparative financial information which are included in Section 4.8 of the Prospectus; and
- the historical consolidated statement of financial position as at 31 December 2019 which is included in Section 4.7 of the Prospectus.

#### **Pro Forma Historical Financial Information**

 the pro forma historical consolidated statement of financial position as at 31 December 2019 and the pro forma adjustments applied as at that date which is included in Section 4.7 of the Prospectus.

(together the "Historical Financial Information").

The Historical Financial Information is presented in the Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the Corporations Act 2001 (Cth).

The Statutory Historical Financial Information has been derived from the audited consolidated financial statements of the Group for FY2018, FY2019 and 1HY20. The financial statements for FY2018 and FY2019 were audited by Grant Thornton Audit Pty Ltd in accordance with Australian Auditing Standards. The audit opinion issued in FY2018 contained a disclaimer of opinion in relation to the Group's ability to continue as a going concern. The FY2019 audit opinion was unqualified but contained an emphasis of matter regarding the existence of a material uncertainty which may cast doubt on the Group's ability to continue as a going concern. The financial statements for 1HY20 were reviewed by Grant Thornton Audit Pty Ltd whom issued an unqualified review opinion but contained an emphasis of matter regarding the existence of a material uncertainty which may cast doubt on the Group's ability to continue as a going concern.

As described in Section 4.2 of the Prospectus, the stated basis of preparation is the recognition and measurement principles contained in International Financial Reporting Standards ("IFRS") and the Group's adopted accounting policies applied to the Financial Information and the events or transactions to which the pro forma adjustments relate, as described in Appendix A and Section 4.7.2 of the Prospectus, as if those events or transactions had occurred as at the date of the Pro Forma Financial Information. Due to its nature, the Pro Forma Financial Information does not represent the Group's actual or prospective financial position, financial performance, or cash flows.

#### DIRECTORS' RESPONSIBILITY

The Directors are responsible for:

- the preparation and presentation of the Historical Financial Information including the selection and determination of the pro forma adjustments and/ or adjustments included in the Pro Forma Historical Financial Information; and
- the information contained within the Prospectus.

This responsibility includes the operation of such internal controls as the Directors determine are necessary to enable the preparation of the Historical Financial Information that are free from material misstatement, whether due to fraud or error.

#### **OUR RESPONSIBILITY**

Our responsibility is to express a limited assurance conclusion on the Historical Financial Information based on the procedures performed and the evidence we have obtained.

We have conducted our engagement in accordance with the Australian Standard on Assurance Engagements (ASAE) 3450 Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A limited assurance engagement is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain reasonable assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly we do not express an audit opinion.

Our engagement did not involve updating or re-issuing any previously issued audit or review report on any financial information used as a source of the Historical Financial Information.

We have performed the following procedures as we, in our professional judgement, considered reasonable in the circumstances:

- consideration of work papers, accounting records and other documents, including those dealing with the extraction of the Statutory Historical Financial Information from audited consolidated financial statements of the Group covering the years ended 30 June 2018 and 30 June 2019 and reviewed consolidated financial statements for the six months ended 31 December 2019 including the 31 December 2018 comparative financial information;
- enquiry of the Directors, management and others in relation to the Historical Financial Information;
- analytical procedures applied to the Historical Financial Information;
- a review of the work papers, accounting records and other documents of the Group and its auditors; and
- a review of the consistency of the application of the stated basis of preparation and adopted accounting policies as described in the Prospectus used in the preparation of the Historical Financial Information;
- consideration of work papers, accounting records and other documents, including those dealing with the extraction of the Consolidated Statement of Financial Position from the audited consolidated financial statements of the Group and its controlled entities as at 31 December 2019; and
- consideration of the appropriateness of the pro forma adjustments described in Section 4.7.2 of the Prospectus;

Our limited assurance engagement has not been carried out in accordance with auditing or other standards and practices generally accepted in any jurisdiction outside of Australia and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

We have assumed, and relied on representations from certain members of management of the Group, that all material information concerning the Historical Financial Information and historical operations of the Group has been disclosed to us and that the information provided to us for the purpose of our work is true, complete and accurate in all respects. We have no reason to believe that those representations are false.

#### Conclusions

Based on our limited assurance engagement, which is not an audit, nothing has come to our attention that causes us to believe that:

#### **Statutory Historical Financial Information**

- The Statutory Historical Financial Information as set out in the Prospectus and comprising:
  - the historical consolidated statement of consolidated profit or loss and other comprehensive income for FY2018, FY2019 and 1HY20 including 31 December 2018 comparative financial information;
  - the historical consolidated statement of cash flows for FY2018, FY2019 and 1HY20 including 31 December 2018 comparative financial information;
  - the historical consolidated statement of financial position as at 31 December 2019;

are not presented fairly, in all material aspects, in accordance with the stated basis of preparation described in Section 4.2 of the Prospectus.

# **Pro Forma Historical Financial Information**

- The Pro Forma Historical Financial Information as set out in the Prospectus and comprising:
  - the pro forma consolidated statement of financial position as at 31 December 2019; and
  - the pro forma transactions set out in Section 4.7 of the Prospectus

are not presented fairly, in all material aspects, in accordance with the stated basis of preparation described in Section 4.2 of the Prospectus.

#### **Restrictions on Use**

Without modifying our conclusions, we draw attention to Section 4.2 of the Prospectus, which describes the purpose of the Historical Financial Information, being for inclusion in the Prospectus. As a result, this Independent Limited Assurance Report may not be suitable for use for another purpose.

#### Consent

Grant Thornton Corporate Finance Pty Limited has consented to the inclusion of this Independent Limited Assurance Report in the Prospectus in the form and context in which it is included.

#### Liability

The liability of Grant Thornton Corporate Finance Pty Limited is limited to the inclusion of this report in the Prospectus. Grant Thornton Corporate Finance makes no representation regarding, and has no liability, for any other statements or other material in, or omissions from the Prospectus.

#### Independence or Disclosure of Interest

Grant Thornton Corporate Finance does not have any pecuniary interests that could reasonably be regarded as being capable of affecting its ability to give an unbiased conclusion in this matter. Grant Thornton Corporate Finance will receive a professional fee for the preparation of this Independent Limited Assurance Report.

Yours faithfully, GRANT THORNTON CORPORATE FINANCE PTY LTD

Malt.

Neil Cooke

Partner



# Appendix A (Financial Services Guide)

This Financial Services Guide is dated 22 May 2020.

# 1 About us

Grant Thornton Corporate Finance Pty Ltd (ABN 59 003 265 987 and Australian Financial Services Licence no 247140) ("Grant Thornton Corporate Finance") has been engaged by Manuka Resources Ltd and its controlled entity ("Manuka" or the "Group") to provide general financial product advice in the form of an Independent Limited Assurance Report (the "Report") in relation to the offer of fully paid ordinary shares in the Group (the "Offer"). This report is included in the prospectus dated on or about 22 May 2020 (the "Prospectus"). 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 (FSG) is designed to assist retail clients in their use of any general financial product advice contained in the report. This FSG contains information about Grant Thornton Corporate Finance 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 and superannuation products and deal in a financial product by applying for, acquiring, varying or disposing of a financial product on behalf of another person in respect of securities and superannuation 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 License to assist you in this assessment.

Grant Thornton Corporate Finance does not accept instructions from retail clients. Grant Thornton Corporate Finance provides no financial services directly to retail clients and receives no remuneration from retail clients for financial services. Grant Thornton Corporate Finance does not provide any personal financial product advice directly to retail investors nor does it provide market-related advice directly to retail investors.

# 5 Fees, commissions and other benefits we may receive

Grant Thornton Corporate Finance charges fees to produce reports, including the report. These fees are negotiated and agreed with the entity which engages Grant Thornton Corporate Finance 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. In the preparation of this report, Grant Thornton Corporate Finance will receive from the Company a fee of \$50,000 (plus GST), which is based on commercial rates plus reimbursement of out-of-pocket expenses.

Partners, Directors, employees or associates of Grant Thornton Corporate Finance, or its related bodies corporate, may receive dividends, salary or wages from Grant Thornton Australia Ltd. None of those persons or entities receive non-monetary benefits in respect of, or that is attributable to, the provision of the services described in this FSG.

# 6 Referrals

Grant Thornton Corporate Finance - including its Partners, Directors, employees, associates and related bodies corporate - does not pay commissions or provide any other benefits to any person for referring customers to us in connection with the reports that we are licensed to provide.

# 7 Associations with issuers of financial products

Grant Thornton Corporate Finance and its Partners, Directors, employees or associates and related bodies corporate may from time to time have associations or relationships with the issuers of financial products. For example, Grant Thornton Australia Ltd may be the auditor of, or provide financial services to the issuer of a financial product and Grant Thornton Corporate Finance may provide financial services to the issuer of a financial product in the ordinary course of its business.

In the context of the report, Grant Thornton Corporate Finance considers that there are no such associations or relationships which influence in any way the services described in this FSG.

# 8 Independence

Grant Thornton Corporate Finance is required to be independent of Manuka in order to provide this report. The following information in relation to the independence of Grant Thornton Corporate Finance is stated below.

"Grant Thornton Corporate Finance and its related entities do not have at the date of this report, and have not had within the previous two years, any shareholding in or other relationship with Manuka (and associated entities) that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Offer. Grant Thornton Corporate Finance has no involvement with, or interest in the outcome of the Offer, other than the preparation of this report.

Grant Thornton Corporate Finance will receive a fee based on commercial rates for the preparation of this report. This fee is not contingent on the outcome of the Offer.

Grant Thornton Corporate Finance's out of pocket expenses in relation to the preparation of the report will be reimbursed. Grant Thornton Corporate Finance will receive no other benefit for the preparation of this report.

# 9 Complaints

Grant Thornton Corporate Finance has an internal complaint handling mechanism and is a member of the Australian Financial Complaints Authority (AFCA) (membership no. 11800). All complaints must be in writing and addressed to the Head of Corporate Finance at Grant Thornton Corporate Finance. We will endeavour to resolve all complaints within 30 days of receiving the complaint. If the complaint has not been satisfactorily dealt with, the complaint can be referred to AFCA who can be contacted at:

#### Australian Financial Complaints Authority

GPO Box 3 Melbourne, VIC 3001 Telephone: 1800 367 287

Email: info@afca.org.au

Grant Thornton Corporate Finance is only responsible for the report and FSG. Grant Thornton Corporate Finance will not respond in any way that might involve any provision of financial product advice to any retail investor.

# 10 Compensation arrangements

Grant Thornton Corporate Finance has professional indemnity insurance cover under its professional indemnity insurance policy. This policy meets the compensation arrangement requirements of section 912B of the Corporations Act, 2001.

# **11 Contact Details**

Grant Thornton Corporate Finance can be contacted by sending a letter to the following address:

#### **Head of Corporate Finance**

Grant Thornton Corporate Finance Pty Ltd Level 17, 383 Kent Street Sydney, NSW, 2000

# 6. Tenement Report

29 April 2020

Board of Directors Manuka Resources Ltd Level 5, Grafton Bond Building 201 Kent Street SYDNEY NSW 2000

**Dear Sirs** 

# INDEPENDENT TENEMENT REPORT MANUKA MINE PROJECT AND MT BOPPY GOLD MINE PROJECT, COBAR, NSW

The Directors of Manuka Resources Ltd (ACN 611 963 225) and wholly owned subsidiary company Mt Boppy Resources Pty Ltd (ACN 611 963 225) (the **Company**) have requested we provide the following Independent Tenement Report (the **Report**) on New South Wales mining and exploration tenements in which they hold an interest.

The Report is for inclusion in a prospectus for the Company, for an Initial Public Offer (**IPO**) intended to raise approximately \$6,000,000 via the issuance of 30,000,000 new shares. The date of the IPO is on or about May 2020.

The Report has been prepared by AMETS independently and in compliance with the Valmin Code. AMETS is an Australian based tenement management consultancy providing a comprehensive tenement management service to the mining and exploration industry in Australia.

The body of the Report follows and includes Schedules 1 to 4.

Yours faithfully

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Tanya Cole Senior Tenement Manager

# INTRODUCTION

- 1. The Report is a technical assessment of New South Wales (**NSW**) mining leases and exploration licences held by the Company and forming the Manuka Mine Project and Mt Boppy Gold Mine Project (the **Tenements**).
- 2. The Report also provides a summary of land titles and other authorisations associated with the Tenements, held by the Company.
- 3. The objectives of the Report are to:
  - 3.1 provide an overview of the key regulatory framework governing the Tenements;
  - 3.2 confirm the ownership of the Tenements, and any registered third-party interests in the Tenements and/or minerals by way of royalty;
  - 3.3 confirm that the Tenements are compliant with respect to relevant legislation and Tenement specific conditions; and
  - 3.4 provide confirmation of the existence of related land titles and other associated authorisations.
- 4. A list of the Tenements (**Tenement Register**) outlining the information detailed below is provided at Schedule 1:
  - 4.1 tenure area, expiry and renewal dates;
  - 4.2 expenditure commitments, rents, security deposits; and
  - 4.3 obligations to any third party, including but not limited to, joint venture or royalty agreements.

# **Scope of Report**

- 5. For the purposes of this Report, searches have been conducted and/or enquiries made in relation to the Tenements as follows:
  - 5.1 public tenement and dealings reports have been extracted from the online Titles Administration System (**TAS**) of the (newly formed) Department of Regional NSW, Division of Mining, Exploration and Geoscience (**MEG**) for each of the subject tenements during January and February 2020;
  - 5.2 instruments of grant, renewal, and/or transfer for the Tenements have been reviewed and downloaded via the online Digital Imaging Geological System (**DIGS**) of MEG, between February and March 2020 (excluding some original grant documents of historical 1973 and 1906 leases which were unavailable);
  - 5.3 rent and administrative levy payment compliance status was confirmed by MEG on 18 February 2020 and further on 23 March 2020; then further reviewed 29 April 2020.
  - 5.4 information contained within MEG mapping applications provided on the MEG website, such as MinView and SEED Portal: Sharing and Enabling Environmental Data was reviewed as relevant to the Report during February 2020;
  - 5.5 the status of native title claims and determinations within the project areas were reviewed using Native Title Vision, the online mapping system of the National Native Title Tribunal (NNTT), and by reviewing extracts from NNTT registers (relevant extracts were downloaded 23 March 2020);
  - 5.6 searches of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) were undertaken on 28 February 2020;

- 5.7 searches of the website of WaterNSW were undertaken on 2 and 3 March 2020 (relevant extracts were downloaded 22 March 2020);
- 5.8 information contained within the Environment Protection Authority website was reviewed and relevant extracts downloaded 2 March 2020;
- 5.9 land title searches were undertaken via Citec Confirm on 2 March 2020;
- 5.10 direct communications with the Company to clarify information and to provide additional documented background information where necessary; and
- 5.11 a general review of compliance with statutory requirements for the period March/April 2020 was further undertaken 29 April 2020.

# Assumptions

- 6. The following assumptions have been made in the preparation of this Report:
  - 6.1 the searches, reports and other documentation obtained from the various sources relied on to prepare this Report are correct as at the date obtained.
  - 6.2 the Ministers administering the relevant Acts and each of their delegates have been validly appointed and have acted within the scope of their power, authority and discretion in granting the tenements and are able and willing to grant any required consents and approvals under relevant legislation.

# Qualifications

- This Report provides a comprehensive review of the requirements of the *Mining Act 1992* (NSW) (MA 1992) only as relevant to the Tenements and refers to related legislation only as relevant to the Tenements. The Report is not intended to be relied upon for purposes other than as stated.
- 8. Every effort has been made to ensure the accuracy of this report. AMETS accepts no liability for any error or omission and can take no responsibility if conclusions of this report are based on incomplete or misleading data. AMETS and the authors are independent of the Company and have no financial interests in the Company or any associated companies. AMETS is being remunerated for this report on a standard fee for time basis, with no success incentives.

# Opinion

- 9. In relation to the Tenements the subject of this Report, namely Manuka Mine Project tenements: ML1659, EL6155, EL6302, EL6482, EL6623, EL7345, EL7515, EL7516, EL8498; and Mt Boppy Gold Mine tenements: EL5842, ML1681, ML311, MPL240, GL3255, GL3856, GL5848, GL5898; we confirm that
  - 9.1 the Company is the sole registered holder of the Tenements;
  - 9.2 third party interests including: royalty agreements and security agreements are registered against the Tenements as detailed at paragraph 30; and
  - 9.3 other agreements including a native title Section 31 Deed and Ancillary Agreement; and Landholder Compensation Agreements as detailed at paragraph 31-34 affect the Tenements.
- 10. In relation to the Tenements and their status under the *Mining Act 1992* (NSW) and *Mining Regulation 2016* (NSW) and their specific conditions, we confirm that in our opinion, the Tenements are compliant.

#### EL6629 MT BOPPY GOLD MINE PROJECT EL65155 EL7515 E

# DESCRIPTION OF THE PROJECT TENEMENTS (AND OTHER AUTHORISATIONS)

Figure 1. Manuka Mine Project and Mt Boppy Gold Mine tenement location plan.

# **Manuka Mine Project**

- 11. The Manuka Mine Project is centred approximately 52 kilometres to the southwest of Cobar, NSW, and comprises one (1) granted mining lease, ML1659 and seven (7) granted exploration licences: EL6155, EL6302, EL6482, EL6623, EL7345, EL7515 and EL8498. The mine and mine infrastructure are located within ML1659 which is situated approximately 80 kilometres to the south of Cobar. Figure 1 shows the location of the Tenements. Further tenement details are provided in Schedule 2.
- 12. ML1659 falls entirely within Western Lands Lease (**WLL**) 6238 (land title Lot 1 on DP1164142) which is owned by Manuka Resources Ltd. The Company also maintains a Crown Licence LI 57250 over WLL 6239 (land title Lot 3632 on DP766015) to access water bores within the adjoining Wirlong Property to the south of WLL6238. WLL 6239 is held by private landholder, Mr Kenneth Gary McDougall. Figure 2 shows the land title boundaries in relation to ML1659. Land tenure summaries are provided in Schedule 4.
- 13. Development Consent 2010/LD-00074, which applies to WLL 6238, was required for ML1659 to be granted. Development Consent was received from the Cobar Shire Council in 2011 and has subsequently been varied over time. Development Consent outlines conditions under which the construction and operation of the mine infrastructure should proceed.
- 14. The Company is the holder of Environment Protection Licence (**EPL**) 20020, which is a requirement of the occupier of any premises on which mining or mining related activities are carried out. The EPL conditions relate to pollution prevention and monitoring. Annual fee and reporting requirements apply to such licences.
- 15. The Company holds Water Access Licences (**WAL**) 30322 (reference 85AL752613) and WAL36531 (reference 80AL722956) which authorise the taking of water from the Wirlong Bore Field located within WLL 6239. Access to the land is authorised under the issued Crown Licence. Annual fees apply to the licences.

16. A current Mining Operations Plan (**MOP**) has been submitted for the Manuka Mine Project.

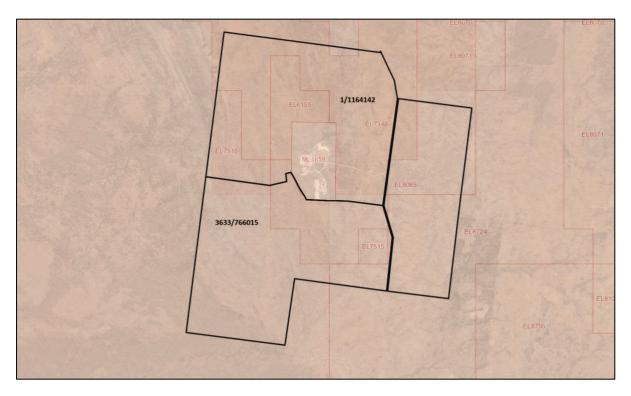


Figure 2. Manuka Mine Project land tenure plan.

# **Mt Boppy Gold Mine Project**

- 17. The Mt Boppy Mine Project is situated approximately 45 kilometres east of Cobar, NSW, adjacent to the Barrier Highway. The Project comprises seven (7) mining leases: ML1681, MPL240, ML311, GL3255, GL5838, GL5848 and GL5898, and one (1) exploration licence EL5842, which encompasses the MLs and extends the project area to the south. A number of the leases were granted under repealed legislation. These historical leases have subsequently been renewed and/or transferred, at which time the previously enforced conditions were replaced with new lease conditions under the MA 1992. Further tenement details are provided in the Tenement Register at Schedule 1 and Tenement Details at Schedule 2. A summary of current Tenement Conditions is provided at Schedule 3.
- 18. ML1681 falls entirely within Crown Reserve R37586 (land title Lot 7301 on DP1170536) see Figure 3. The remaining mining leases also fall within the Reserve, with parts of GL5848 and GL5898 also overlapping allotments in the residential area of the Canbelego Township. The Mt Boppy Gold Mine Project MOP states that the Cobar Shire Council has previously advised that these allotments are not valued or rated by the Council and are therefore considered to be vacant Crown land. A title search was undertaken for the Reserve on 2 March 2020. A summary of the title is provided in Schedule 4.
- 19. The MOP further states that the majority of remaining land tenure within the Canbelego Township is either Crown Land, owned by Cobar Shire Council or freehold land owned by the Company. A list of title searches undertaken in 2016 were supplied by the Company, however they do not form part of this report as it is understood that the titles do not affect land on which the Tenement sit.
- 20. The remaining residences are located on Company owned land. The resident mine caretaker lives in his property at Canbelego adjacent to the Mine.

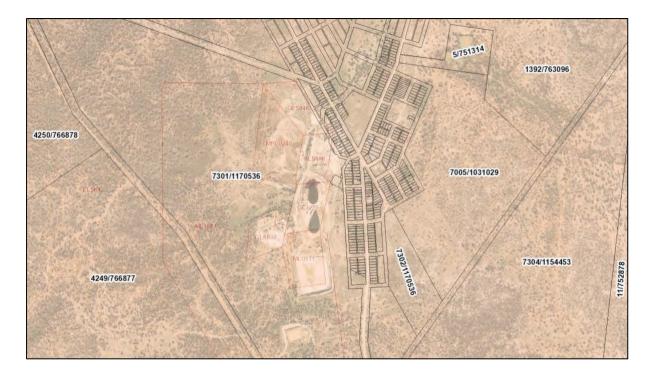


Figure 3. Mt Boppy Gold Mine Project tenement and cadastral location plan.

- 21. There are three (3) resident landowners in Canbelego that have a compensation agreement with former owner of the Mt Boppy Gold Mine (Polymetals (Mt Boppy) Pty Ltd) which the Company advises they are honouring. The agreements cover compensation for any noise and/or dust when the site is active. One (1) agreement remains verbal. The Company advises that discussions with all landowners in relation to the re-start of the Mt Boppy Gold Mine are ongoing.
- 22. The Company advises that it intends to pursue access agreements with landowners in relation to future proposed exploration programs where necessary in the lead up to program implementation.
- 23. Development Consent 2011/LD-00070REV1, which applies to Crown Reserve R37586 (Lot 7301 on DP1170536) is in place for the Mt Boppy mining leases.
- 24. The Company holds Environment Protection Licence (EPL) 20192 in relation to Crown Reserve R37586 and the Mt Boppy Gold Mine mining leases.
- 25. The Company holds Water Access Licence (**WAL**) 30354 (reference 85AL752611) which authorises the take of water from bores located within Crown Reserve R37586 (Lot 7301 o DP1170536) under the conditions of the WAL.
- 26. A current Mining Operations Plan (**MOP**) has been submitted for the Manuka Mine Project.

# **OWNERSHIP OF THE TENEMENTS**

# **Registered Holding 100%**

- 27. Manuka Resources Ltd ACN 611 963 225 became the sole registered holder of the Manuka Mine Project tenements on registration of transfers on 22 December 2016 following purchase of the tenements.
- 28. Mt Boppy Resources Pty Ltd ACN 611 963 216, now a wholly owned subsidiary company of Manuka Resources Ltd, became the sole registered holder of Mt Boppy Mine Project tenements following registration of transfers on 22 June 2017.
- 29. Tenement holding history is noted within the Tenement Details in **Schedule 2** for the purpose of background information.

# **Registered Third Party Interests/Encumbrances**

30. The MA 1992 allows for the registration of interests in tenements. For the purposes of legal proceedings, a registered interest has priority over an unregistered interest and priority is given to an earlier registered interest over a later registered interest. The below tabled agreements remain registered against the Tenements. A review of these agreements has not been undertaken as part of this Report

Tenements	Registered Third Party Interest/Encumbrances
Manuka Mine Project (All tenements)	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016 between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald
Manuka Mine Project (All tenements)	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
Mt Boppy Mine Project (All tenements)	Agreement registered 22 August 2018, "Royalty Agreement – Mt Boppy" dated 30 May 2016 between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald
Mt Boppy Mine Project (All tenements)	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.

# Native Title and Landholder Agreements

- 31. A Section 31 Deed and Ancillary Agreement (Deed of Agreement) regarding the grant of ML1681 was entered into between the then holder of MLA281 (now ML1681) Polymetals (Mt Boppy) Pty Limited, and native title claimants Elaine Ohlsen, John Clarke, Barry Williams, Robert King and Tarissa Staker on behalf of the Ngiyampaa People (Canbelego) (NC2007/004).
- 32. On or about 8 August 2016, following completion of the purchase of the Mt Boppy Gold Mine Project tenements, Mt Boppy Resources Pty Ltd signed a Deed of Assumption, agreeing to assume obligations under the Ancillary Agreement mentioned above. The agreement is further discussed at paragraph 129+.
- 33. The Company advises of an agreement with neighbour "the Mosely's" which essentially gives them first rights to bid for the land lease once mining operations are finished.
- 34. Landholder compensation agreements (written/verbal) are in place with three (3) resident landowners in Canbelego for when the site is active. The Company advises it is honouring these agreements.

# **NEW SOUTH WALES TENEMENTS**

# **The Legislative Framework**

#### Tenements

35. The Mining Act 1992 (NSW) (the **MA 1992**) and associated Mining Regulations 2016 (NSW) (the **MR 2016**) provide the framework under which exploration and mining activities may occur. No such activities can occur without holding the required granted tenement. The requirements of the MA 1992 and MR 2016 are comprehensively detailed further within this Report.

#### **Native Title**

- 36. Claims for native title exist over parts of NSW. The existence of a lodged claim does not necessarily mean that native title exists over the area claimed. The absence of a claim is also not an indicator that no native title exists in an area. The existence of native title will be established by the Federal Court through the determination process.
- 37. Some prior acts have been found to extinguish native title, such as Western Lands Lease grants, grants in Freehold, among others, as is the case at the Manuka Mine Project.
- 38. Where native title extinguishment has not been determined, a native title process under the *Native Title Act 1993* (Cth) (**NTA**) must be followed in order to establish a validly granted mining or exploration licence.
- 39. In NSW, mining lease applications are submitted to the right to negotiate (**RTN**) process of the NTA prior to grant. The RTN process provides for notice, and the opportunity for any registered native title parties to negotiate regarding the terms of grant.
- 40. For tenements granted prior to 1 January 1994 (the commencement of the NTA) the NTA allowed for the State of NSW to enact legislation which worked to validate such grants that would otherwise have been invalid because of native title.
- 41. Standard Exploration licences in NSW are granted subject to the condition that requires the holder to obtain the Minister's consent before carrying out an exploration activity on land where native title has not been extinguished. Where native title extinguishment cannot be proven, obtaining Minister's consent (in relation to all or part of an exploration licence) requires the RTN to be undertaken.
- 42. The RTN requires the native title party and grantee party to negotiate in good faith towards agreement on the grant of the tenement. Where agreement is reached, the parties will enter into a Section 31 Deed (including the Government party) authorising the grant, and an ancillary deed which will detail terms as to rights that may be exercised by the holder upon grant.
- 43. If the parties cannot reach agreement, a party may apply to the NNTT to make a determination as to whether the grant may proceed and if so, on what conditions.
- 44. The use of the RTN via the expedited procedure is not utilised in NSW as in other States of Australia due to the nature of the underlying land tenure across the State.

#### **Aboriginal Cultural Heritage**

45. The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth) (**Commonwealth Heritage Act**) is aimed at the preservation and protection of any Aboriginal areas and objects that may be located within tenements.

- 46. Under the Commonwealth Heritage Act, the responsible Minister may make declarations of preservation in relation to significant Aboriginal areas or objects, which can affect exploration activities. Compensation is payable by the Minister to a person who is, or is likely to be, affected by a permanent declaration of preservation.
- 47. Under the *National Parks and Wildlife Act 1974* (NSW) (**NPW Act**), land containing Aboriginal objects or sites may be reserved as an Aboriginal area for the purpose of identifying, protecting and conserving objects or sites. It is unlawful to explore or mine for minerals in an Aboriginal area unless expressly authorized.
- 48. The NPW Act also authorises the Minister to declare a place that is or was of special significance to Aboriginal culture to be an Aboriginal place and makes it an offence to knowingly destroy, deface or damage, or knowingly permit the destruction, defacement of or damage to, an Aboriginal object or Aboriginal place without the consent of the Director-General.
- 49. To satisfy obligations in relation to Aboriginal heritage, tenement holders commonly undertake Aboriginal heritage surveys, which involve the relevant traditional owners and as necessary, an archaeologist or anthropologist walking the land, identifying sites and discussing the impact of proposed exploration activity. The costs of a heritage survey are met by the tenement holder.
- 50. It should be noted that the NSW Government is in the process of developing a new legal framework to change the way Aboriginal cultural heritage is currently protected and managed in NSW.

# **Environmental Protection and Rehabilitation**

- 51. The holder of a granted tenement must complete further environmental assessments under the *Environmental Planning and Assessment Act 1979* (NSW) prior to commencement of activities, and follow-up rehabilitation upon completion of activities.
- 52. In relation to granted mining leases, additional approvals under environmental protection licences issued under the *Protection of the Environment Operations Act 1997* (NSW) may also be required to regulate the impact of mining to be undertaken.

# Work Health and Safety

53. Obligations under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* (NSW) also apply to most activities to occur under a granted tenement prior to commencement.

# Mining Lease (ML) Holder Rights and Responsibilities

# **Restrictions on Applications**

- 54. An ML cannot be applied for over an existing tenement for the same minerals without the consent of the holder. Notice and an opportunity to object to an ML application is provided to the holder of an existing EL for minerals other than those the ML application is made for. The Company holds the area surrounding the existing Manuka and Mt Boppy mine areas under current ELs, providing exclusive rights to the Company to apply for further MLs in the vicinity of the mines.
- 55. Restrictions apply to the grant of MLs on land within 200 metres of a dwelling or house which is a principal place of residence; within 50 metres of a garden; or on any significant improvement to the land.
- 56. Consideration may be given to the grant below the surface at sufficient depth.
- 57. Development consent under the *Environmental Planning and Assessment Act 1979* (NSW) is required for activities to be carried out under the lease before the granting of an ML. An Environmental Impact

Statement (**EIS**) is required to accompany an application for development consent. Development consent is in place for the mine projects (refer to paragraphs 13 and 23)

- 58. An ML may be granted in respect of any mineral or minerals and may be granted over the surface or subsoil of the land, and or to or between defined depths. An ML may also be granted for Ancillary Mining Activities.
- 59. The maximum term of an ML is 21 years, unless otherwise agreed to by the Premier.
- 60. A granted ML provides the exclusive right to mine specified minerals or conduct mining related activities on the land. To be granted of an ML the applicant must demonstrate the presence of an economically mineable mineral resource within the area of the lease. The holder must also provide evidence of financial and technical capability to carry out mining in a responsible manner.
- 61. An ML may also authorise primary treatment operations.
- 62. Upon grant of an ML, a landholder becomes entitled to compensation for loss suffered, or likely to be suffered as a result of the exercise of rights under the ML.

# Ancillary Mining Activity (AMA)

- 63. AMAs include processes and infrastructure used to directly facilitate a mining operation, such as tailings dams, stockpiles of waste rock.
- 64. An AMA Condition is an enforceable title condition imposed on an existing ML to regulate the carrying out of the AMA outside the boundary of the ML.

# Mining Purpose Lease (MPL)

- 65. Mining cannot occur on an MPL.
- 66. MPLs were established under the Mining Act 1906 (NSW) for purposes including the construction, maintenance or use (in conjunction with mining operations) of specified infrastructure, and the removal, stockpiling or management or depositing of overburden associated with mineral extraction.
- 67. An MPL is maintained at the Mt Boppy Gold Mine for the purpose of a dam, an/or dumping of ore and mine residues.
- 68. MPLs are no longer granted and are now MLs under the MA 1992. The term "mining purpose" is now referred to as AMA.

# Gold Mining Lease (GL)

69. GLs were a type of mining lease permitted under the *Mining Act 1906* (NSW). They are no longer granted under the MA 1992. Four (4) such leases are maintained at the Mt Boppy Gold Mine.

# **Exploration Licences (EL) Holder Rights and Responsibilities**

# **Exploration Activity Approval**

70. The grant of an EL does not in itself authorise the carrying out of exploration activities other than those identified as having minimal environmental impact (Exempt Development). Any activities that are not Exempt Development (Assessable Prospecting Activities) require further environmental approval, and work health and safety notification before they can occur. The conditions of any activity approval must

be complied with. Approval of mandatory rehabilitation objectives and criteria is also required as part of an activity approval.

- 71. There have been no activity approvals recorded since the inclusion of approvals within licence conditions in 2016. Historical programs were undertaken by previous holders and are currently the subject of review by the Company and discussion with MEG to establish a process of "rehabilitation clearance" of prior activity authorisations. We understand that investigations have not uncovered significant rehabilitation liabilities to date in relation to historical activity approvals.
- 72. Any future assessable prospecting operations carried out on the ELs will require activity approval.

# **Mineral Groups**

73. An EL may be granted for one or more groups of minerals; and may be over the surface and/or subsoil of the land. Mineral groups applicable to the Tenements have been noted in the Tenement Register in Schedule 1.

# Maximum Term

74. An EL may be granted for a maximum term of 6 years (excluding Mineral owner licences granted for 2 years). Prior to 2015, an EL was more likely to be granted or renewed for a lesser term under MEG policy.

# **Exploration Rights**

75. The holder of a granted EL has the exclusive right to undertake exploration activities on the land for one or more mineral groups, and to remove samples for the purpose of testing the mineral bearing qualities of the land (subject to further Activity Approval as required).

# **Exempted Areas**

- 76. The holder of an EL must obtain the approval of the Minister to undertake exploration activities in (Exempted Areas), which includes State Forests, State Conservation Areas and most other public lands.
- 77. It is noted that exempted area approval was received for EL5842 to exercise rights within an area within the Canbelego Common Travelling Stock Route and Camping Reserves. Further details are noted within the Dealings listed against EL5842 in Schedule 2.
- 78. To obtain Ministerial approval to conduct exploration within Exempted Areas, an environmental assessment of the activity to be undertaken will be required, and an access arrangement with the landholder (responsible authority) will also be required.

# **Restrictions on Certain Activities**

- 79. Restrictions apply to activities to occur on the surface of the land within 200 metres of a dwelling or house which is a principal place of residence; within 50 metres of a garden; or on any significant improvement to the land.
- 80. The MA 1992 allows for the grant of a special class of low-impact EL. The ELs the subject of this Report are standard ELs and not low-impact.

# **Exploration Area and Exclusions**

81. EL area is expressed in **Units.** A unit is a one minute by one minute block, which covers an area of approximately 3 square kilometres.

- 82. EL areas are granted exclusive of some land types such land vested in the Commonwealth of Australia; under mining reserve which excludes the grant of a particular type of tenement; or land located within a national park, regional park, historic site, nature reserve, karst conservation area or Aboriginal area established under the NPW Act.
- 83. Diagrams associated with the Tenement grant or renewal documentation show no evidence of areas that have been excluded or excised from the tenement areas on grant or renewal.

#### **Overlapping Tenements**

84. EL8065, granted for group 8 minerals, in favour of the Secretary of the Department of Planning and Environment overlaps a large area of the Manuka Mine Project ELs. There are no further incidences of overlapping tenements in relation to Mt Boppy EL5842.

# **General Tenement Rights and Responsibilities**

#### **Renewal of Tenements**

- 85. An application to renew an EL must be lodged within the period of 2 months before expiry. The maximum renewal term for an EL is 6 years per renewal.
- 86. An application to renew an ML (for a term greater than 1 year) must be lodged not earlier than 5 years and not later than 1 year before expiry. The maximum renewal term for an ML is 21 years per renewal unless otherwise agreed to by the Premier.
- 87. An ML will only be granted or renewed where there is an economically mineable mineral deposit, and the applicant has the financial and technical resources to carry out mining in a responsible manner.
- 88. Renewal of a tenement is not an automatic right. Sufficient justification must accompany an application to renew.
- 89. Where an application to renew a tenement remains undecided at the expiry date of the tenement, the tenement continues to remain in force until determined. The renewal will take effect from the date the renewal is granted.
- 90. An application to renew EL8498 over the entire area currently available, for a period of 5 years is currently pending. All required supporting information has been submitted to support a valid application to renew this EL.

# **Reduction in Area of EL**

91. An EL must be reduced in area by 50% on application for renewal, unless special circumstances exist that justify retention of all or part of the area. Each request for the waiver of the reduction requirement will be assessed on its merits.

#### **Access Arrangements for ELs**

- 92. No on-ground exploration can occur except in accordance with an access arrangement, either agreed in writing or as determined by an arbitrator.
- 93. Notice of the making of the access arrangement must be served on any registered mortgagee.
- 94. An access arrangement will only apply to any new landholder, where the tenement holder has provided the new landholder with a copy of the access arrangement and the new landholder does not object to the access arrangement within 28 days after being given a copy.

95. It is noted that access to lands was determined via arbitration for EL6302 and EL6623 in 2009, however we understand that the Company has not made use of the determinations for the purpose of land access, and that the Company intends to review access with landholders as and when necessary.

# Grounds for Cancellation

96. Other than at the request of the holder of the tenement, a tenement may be cancelled where a provision of the Act, or condition of the tenement has been contravened; the holder provides false or misleading information in an application or report in relation to the tenement; the holder fails to pay compensation in relation to any environmental assessment; if the holder is convicted of any offence relating to mining or minerals; for failing to use the land for a purpose other than which the tenement has been granted; or if the decision maker is satisfied the land is required for a public purpose.

# **General Conditions and Additional Statutory Requirements**

97. A full summary of the General Conditions imposed on the grant of mining and exploration tenements is provided in Schedule 3. Key conditions and other additional statutory obligations that must be met in relation to the Tenements are noted here.

# **ML Mining Operations Plan**

- 98. It is a condition of an ML that the holder prepare a Mining Operations Plan (**MOP**) and submit for approval by the Minister, prior to commencing any significant surface disturbing activities.
- 99. The MOP must detail: areas that will be disturbed; the various stages of the specific activities proposed; how the mine will be managed and rehabilitated, post mine; how activities will be carried to prevent or minimise harm to the environment; and reflect the conditions of approval under environmental regulations and any other relevant approvals
- 100. MOPs are approved for specific timeframes, and must be re-submitted for approval at the end of each specified timeframe.
- 101. The holder must also submit an annual rehabilitation report (previously known as the Annual Environmental Management Report (AEMR)), outlining the progress of rehabilitation against measures and criteria provided within the approved MOP.
- 102. Current MOPs have been submitted for both the Manuka Mine and Mt Boppy Gold Mine, and Annual Rehabilitation Reporting is also up-to-date.

# **EL Work Programs**

- 103. Since July 2015, the work program has formed part of the grant/renewal instrument of an EL as a standalone schedule.
- 104. The holder must carry out the approved work program, including exploration activities, environmental, and community consultations, specified for each year of a licence. The estimated expenditure to complete the activities proposed for each year is recorded within the work program. The work program is considered a "live" document for the grant or renewal term specified and is submitted on an annual basis as part of the Annual Activity Report. This annual submission provides an opportunity to review and vary the work program as proposed where justified.
- 105. Compliance with, or justification for not having met, proposed exploration objectives will be subject to review by the assessor upon seeking renewal of the EL.

#### **Annual Reporting**

- 106. Annual Activity Reports must be lodged within 1 calendar month of the grant anniversary date for individual ELs. Annual activity reporting requires the submission of four components: Annual activity summary and expenditure table; Annual exploration report; Annual environmental management and rehabilitation compliance report; and Annual community consultation report. The approved work program (varied as necessary) is also submitted with the mentioned reports.
- 107. It is noted that current Annual Activity Reporting for the Tenements is up to date. (This includes any approval for extension of time for lodgement of reporting requirements.)
- 108. Annual exploration/geoscientific reports are submitted for MLs within 1 calendar month of the grant anniversary date. Mt Boppy Gold Mine Project tenements form an approved group of MLs for reporting purposes. All reports have been lodged.
- 109. Partial relinquishment reports and final reports must be lodged within 1 calendar month of cancellation/partial cancellation of a tenement.
- 110. Application for extension for lodgement of reports may be made 30 days prior to the report due date.

# **Payments of Royalty and Mining Statistics Returns**

- 111. A royalty is payable on or before 31 July in each year on minerals recovered during the previous year ending 30 June.
- 112. A royalty payment amounting to greater than \$50,000 during a 12 month period is payable on a quarterly basis.
- 113. Royalty returns are currently up to date for the Tenements.

#### **Annual Rent and Administrative Levy**

- 114. Annual Rent is calculated on the area of land covered by the tenement. Rental rates vary depending on the type of tenement, currently \$6.50 per hectare for MLs and \$60 per unit for ELs. A minimum rate of \$100 per annum applies.
- 115. Rent payments are calculated from the grant of the tenement and on each anniversary of grant during the term.
- 116. The Annual Administrative Levy ("AAL") is calculated as 1% of the security deposit, at the date the liability arises. The AAL is an annual liability which also arises on the grant of the authorisation and on every anniversary of grant thereafter. The minimum AAL is \$100 per annum.
- 117. MEG advise that rent and levy payments are up-to-date for the Tenements.

#### **Security Deposit**

- 118. The requirement to provide a Security Deposit is imposed as a general condition of a tenement and must be in place prior to grant or prior to undertaking approved activities where an increase in security is required. The minimum security deposit of \$10,000 is to be maintained for each Tenement.
- 119. The security deposit must meet the full cost of undertaking rehabilitation in the event of default by the holder. Details of security deposits required and currently held in relation to the Tenements are noted in Schedule 2. All current securities held satisfy the Tenement conditions.

#### **Mine Safety Legislation**

- 120. Appointment and notification of operator of a mine (holder or other) for both MLs and ELs where mechanised activities are proposed must be supplied to the regulator prior to activities taking place. Notice of activities ceasing is also required.
- 121. Notice of reportable events (proposed activities) must be provided prior to onsite activities occurring (may also be completed within an application for activity approval).
- 122. 30 days notice is required for events such as commencement/suspension/closure of mining operations and intermittent events like commencement of exploration drilling program on an EL.
- 123. Work Health and Safety (**WHS**) Reports are to be submitted for the quarter for all mines. The 1st, 2nd, 3rd and 4th quarterly reports are due at the end of the quarter that activities took place but must be submitted no later than 31/07 in each year.
- 124. Quarterly WHS Reports have previously been required for ELs (not forming part of an active mining operation). This requirement is expected to be omitted in the near future.
- 125. The Company has confirmed that all WHS reporting commitments are up to date.

#### **Penalty Notice Offences and Penalties**

126. We note that the Company has previously been issued with penalty notices (in 2018) for late payment of rent on some of the Tenements. The Company has since undertaken a review of administrative practices to ensure that rent payments are attended to within the required timeframes to ensure compliance is maintained.

#### **Native Title**

- 127. The holder must not undertake any work on any land or waters within a licence area on which native title has not been extinguished without the prior written consent of the Minister. Obtaining the consent of the Minister in NSW, requires the completion of the right to negotiate (**RTN**) process under the *Native Title Act 1993* (Cth).
- 128. In relation to the Mt Boppy Gold Mine Project, records show that EL5842 has been the subject of the RTN process. Section 29 notification occurred on 25 August 2005 and at the close date, there was no registered native title claim in the area of the EL. As a result, the native title condition was satisfied, and Minister's consent was received to undertake work under the EL on 23 January 2006.
- 129. On 4 April 2007, section 29 notification was issued for MLA281 (now ML1681). At the end of the notification period, an application for determination of native title made on behalf of the Ngiyampaa People (NC2007/004) was registered with the NNTT. The claim encompassed the area of MLA281.
- 130. Polymetals (Mt Boppy) Pty Ltd (the then owner of the Mt Boppy Gold Mine Project) and the Ngiyampaa People commenced the RTN process, negotiating in good faith to in relation to the grant of MLA281. Negotiations resulted in the parties entering into a Section 31 Deed and Ancillary Agreement dated 19 November 2010.
- 131. The agreement is to apply to any future mining lease granted within the area of EL5842, but excludes the area of GL5848, GL3255, GL5836 and GL5898.
- 132. Among other things, the Deed sets out a procedure for the management of cultural heritage and requires payments to be made upon invoice to the holder and set royalty payments.

- 133. The Ngiyampaa People (NC2007/004) native title claim was registered between 24 August 2007 and 6 December 2011, and then discontinued on 6 December 2011.
- 134. On 12 April 2012, an application for determination of native title made on behalf of the Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan (NC2012/001) was registered with the NNTT (the NNWW Claim). The NNWW Claim encompasses both the Manuka Mine Project and Mt Boppy Gold Mine Project, covering a significant area of approximately 95,045km<sup>2</sup> across the region.
- 135. On or about 8 August 2016, following completion of the purchase of Mt Boppy Gold Mine Project tenements, Mt Boppy Resources Pty Ltd entered into a Deed of Assumption, agreeing to assume obligations under the ancillary deed as they relate to the Tenements.
- 136. Future ML applications will still be subject to the RTN process and will need to negotiate with the NNWW native title claimants (while the claim remains registered).
- 137. A review undertaken by a third party legal firm advised that the majority of the area underlying the Manuka Mine Project has been the subject of acts that have extinguished native title. For pockets of land where proof of native title extinguishment cannot be confirmed, the RTN process must be undertaken.
- 138. It should be noted that extinguishment of native title in areas has no bearing on the potential existence of registered or unregistered Aboriginal heritage sites or places within those areas.

#### **Aboriginal Heritage**

- 139. The Company has undertaken searches for registered sites and declared places via the Aboriginal Heritage Information Management System (AHIMS) maintained by the Office of Environment and Heritage NSW. As registered sites and/or places were returned, it is recommended that further extensive searches are undertaken to determine the location of the sites/places and to establish whether buffer zones need to be established.
- 140. Approximately 62 registered Aboriginal sites are recorded within the area of the Manuka Mine Project ELs, and 20 just within the area of the ML.
- 141. Approximately 33 registered Aboriginal sites are recorded within the area of the Mt Boppy Gold Mine Project ELs, 2 falling within the area of the MLs.
- 142. We note that not all Aboriginal sites or places may be recorded on the register. AMETS recommend the Company also review the NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects in order to ensure protection of Aboriginal cultural heritage within defined work areas.
- 143. A third party legal report mentions the existence of an Aboriginal Heritage Impact Permit (number 1131690) previously granted to Consolidated Resources Limited (a former owner of the Manuka Mine Project) in connection with construction of the Manuka Mine.
- 144. In relation to ML1681, the native title ancillary deed provides a mechanism for Aboriginal heritage management.
- 145. Records of prior Aboriginal cultural heritage surveys across the Tenements have not been sighted during this review of the Tenements.

# SCHEDULES 1 TO 4 FORM PART OF THIS REPORT

Schedule 1 – Tenement Register

Schedule 2 – Tenement Details

Schedule 3 – General Tenement Conditions

Schedule 4 – Land Tenure



## SCHEDULE 1: TENEMENT REGISTER

Tenement	Act	Registered Holder F	Registered	Registered Grant Date	Current	Expiry Date	Status	Current	Current Surface		Depth	Security	Annual Rent	Admin	Annual Rent Admin Next Rent/	Minerals / Methods / Purposes
	Granted		Holding		Term				Area (Ha)	Exception F	Restriction	Required /		Levy (1% x	Admin Levy	
	Under				Effective Date			(Units)				Security Held	Min \$100)	Security)	Due	
MANUKA MINE PROJECT	INE PROJE	ECT														
EL6155	1992	Manuka Resources Ltd	100%	17-Nov-03	16-May-17	17-Nov-21	Current	2		Nil	Nil	\$50,000	\$300.00	\$500	09-Jan-21	Group 1 Minerals/Nil methods excluded
EL6302	1992	Manuka Resources Ltd	100%	23-Sep-04	08-Feb-17	23-Sep-21	Current	96		Nil	Nil	\$60,000	\$5,760.00	\$120	09-Nov-20	Group 1 Minerals/Nil methods excluded
EL6482	1992	Manuka Resources Ltd	100%	18-Nov-05	07-Mar-17	18-Nov-21	Current	92		Nil	Nil	(Group	\$5,520.00	\$120	09-Jan-21	Group 1 Minerals/Nil methods excluded
EL6623	1992	Manuka Resources Ltd	100%	31-Aug-06	20-Jun-19	31-Aug-20	Current	6		Nil	Nil	Security)	\$540.00	\$120	09-Oct-20	Group 1 Minerals/Nil methods excluded
EL7345	1992	Manuka Resources Ltd	100%	25-May-09	30-Mar-17	25-May-22	Current	5		Nil	Nil		\$3,540.00	\$120	09-Jul-20	Group 1 Minerals/Nil methods excluded
EL7515	1992	Manuka Resources Ltd	100%	07-Apr-10	26-Jul-17	07-Apr-22	Current	2		Nil	Nil	-	\$300.00	\$120	09-Jun-20	Group 1 Minerals/Nil methods excluded
EL8498	1992	Manuka Resources Ltd	100%	10-Jan-17	10-Jan-17	10-Jan-20	Current*	48		Nil	Nil	\$10,000	\$2,880.00	\$100	09-Mar-21	Group 1 Minerals/Nil methods excluded
ML1659	1992	Manuka Resources Ltd	100%	23-Nov-11	23-Nov-11	23-Nov-32	Current		923.8	Nil	Ni	\$5,515,000	\$6,004.70	\$55,150	09-Jan-21	Silver, gold, copper, lead, zinc
																Method/Purpose: Open Cutting
EPL20020		Manuka Resources Ltd		14-Nov-11		N/A	Current									
WAL30322		Manuka Resources Ltd		20-Dec-16		N/A	Current									Reference: 85AL752613
WAL36531		Manuka Resources Ltd		20-Dec-16		N/A	Current									Reference: 80AL722956
MT BOPPY GOLD MINE PROJECT	NIW CIO	IE PROJECT														
EL5842	1992	Mt Boppy Resources Pty Ltd	100%	19-Apr-01	03-Jul-17	19-Apr-21	Current	70		Nil	Nil	\$10,000	\$4,200.00	\$100	09-Jun-20	Group 1 Minerals/Nil methods excluded
ML1681	1992	Mt Boppy Resources Pty Ltd	100%	12-Dec-12	12-Dec-12	12-Dec-33	Current		188.1	Part	liN	\$1,365,000	\$1,222.65	\$1,950	09-Feb-21	Gold, Lead, Silver, Zinc
		1								Various		(Group				Method/Purpose: Dumping or Depositing
												Security)				Ming Residues or Tailings; Open Cutting;
																Use of Environmental screens, Walls, or
																Barriers.
MPL240	1973	Mt Boppy Resources Pty Ltd	100%	17-Jan-86	08-Jul-14	12-Dec-33	Current		17.8	Nil	2 metres	-	\$115.70	\$1,950.00	09-Mar-21	Nil minerals
																Method/Purpose: Dam, Dumping of ore
																and mine residues
ML311	1973	Mt Boppy Resources Pty Ltd	100%	08-Dec-76	08-Jul-14	12-Dec-33	Current		10.117	Nil	3 metres		\$100.00	\$1,950	09-Feb-21	Gold
												1				Method/Purpose: Nil specified
GL3255	1906	Mt Boppy Resources Pty Ltd	100%	20-May-26	08-Jul-14	20-May-33	Current		8.281	İ	Ī		\$100.00	\$1,950	09-Jul-20	Gold
																Method/Purpose: Open Cutting, Shaft
																Sinking, Stoping, Tunnelling
GL5836	1906	Mt Boppy Resources Pty Ltd	100%	15-Jun-65	08-Jul-14	15-Jun-33	Current		6.045	ī	ī		\$100.00	\$1,950	09-Aug-20	Gold
												1				Method/Purpose: Treatment of Tailiings
GL5848	1906	Mt Boppy Resources Pty Ltd	100%	15-Feb-68	08-Jul-14	15-Jun-33	Current		8.625ha	z	z		\$100.00	\$1,950	09-Apr-21	Gold Method/Purpose: Treatment of Tailiings
GL5898	1906	Mt Boppy Resources Pty Ltd	100%	21-Jun-72	08-Jul-14	12-Dec-33	Current		7.512ha	Nil	Nil	-	\$100.00	\$1,950	09-Aug-20	Gold, Silver
																Method/Purpose: Open Cutting, Shaft
												1				Sinking, Tunnelling
EPL20192		Mt Boppy Resources Pty Ltd		10-Jan-13		N/A	Current					1				
WAL30045		Mt Boppy Resources Pty Ltd		14-Jun-12		N/A	Current									Reference: 85AL752611
* Renewal pending	ending															



## SCHEDULE 2: TENEMENT DETAILS

EL6155 (Act 1992) – Manuka N	line Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	17 November 2003
Date Expires	17 November 2021
Current Term Effective Date	16 May 2017 (Renewal approved)
Current Area	5 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$50,000
Security Held	\$50,000
Annual Administrative Levy	\$500
Annual Rental Fee	\$300
Proposed Annual Expenditure	Year 1: \$20,000
	Year 2: \$20,000
	Year 3: \$25,000
	Year 4: \$25,000
	Year 5: \$25,000
	(as per current approved Work Program WP-EL6155-2017-2021)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding History	Granted to Triako Resources Pty Ltd Transfer registered 26 September 2011 to Cobar Consolidated Resources Ltd Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd
General Conditions (EL6155 (1992) Version 3.2)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control
Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.



Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL6155-2017-2021
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC



EL6302 (Act 1992) – Manuka M	ine Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	23 September 2004
Date Expires	23 September 2021
Current Term Effective Date	8 February 2017 (Renewal approved)
Current Area	96 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Security Held	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Annual Administrative Levy	\$120
Annual Rental Fee	\$5,760
Proposed Annual Expenditure	Year 1: \$150,000 Year 2: \$150,000
	Year 3: \$150,000 Year 4: \$200,000 Year 5: \$200,000
Minerals	(as per current approved Work Program WP-EL6302-2016-2021) Group 1
	Nil methods excluded
Method/Purpose	
Registered Dealings	Agreements (Approved) Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	Arbitration Re Access to Lands (Approved) Determination date 4 June 2009 was not available for public review.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
	<b>Security Review (Pending)</b> An application has been made to remove EL6623 from the current group security and hold an individual security of \$10,000. The group security will in turn reduce by \$10,000. The application remains pending at the time of writing this Report.
Tenement Holding History	Granted to Resource Management and Development Pty Ltd Transfer registered 6 July 2006 to Cobar Consolidated Resources Limited Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd



General Conditions (EL6302 (1992) Version 3)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control
Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL6302-2016-2021
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC; Cobar LALC



EL6482 (Act 1992) – Manuka M	ine Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	18 November 2005
Date Expires	18 November 2021
Current Term Effective Date	7 March 2017 (Renewal approved)
Current Area	92 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Security Held	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Annual Administrative Levy	\$100
Annual Rental Fee	\$5,520
Proposed Annual Expenditure	Year 1: \$150,000
	Year 2: \$150,000
	Year 3: \$150,000
	Year 4: \$200,000
	Year 5: \$200,000
	(as per current approved Work Program WP-EL6482-2017-2021)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
	<b>Security Review (Pending)</b> An application has been made to remove EL6623 from the current group security and hold an individual security of \$10,000. The group security will in turn reduce by \$10,000. The application remains pending at the time of writing this Report.
Tenement Holding History	Granted to Resource Management and Development Pty Ltd Transfer registered 6 July 2006 to Cobar Consolidated Resources Limited Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd



General Conditions (EL6623 (Act 1992) Version 3.4)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control
Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL6482-2017-2021
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Cobar LALC



EL6623 (Act 1992) – Manuka M	ine Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	31 August 2006
Date Expires	31 August 2020
Current Term Effective Date	20 June 2019 (Renewal approved)
Current Area	9 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Security Held	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Annual Administrative Levy	\$120
Annual Rental Fee	\$540
Proposed Annual Expenditure	Year 1: \$25,000
	Year 2: \$50,000
	(as per current approved Work Program WP-EL6623-2018-2020)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Arbitration Re Access to Lands (Approved)</b> Determination date 4 June 2009 was not available for public review.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
	<b>Security Review (Pending)</b> An application has been made to remove EL6623 from the current group security and hold an individual security of \$10,000. The group security will in turn reduce by \$10,000. The application remains pending at the time of writing this Report.
Tenement Holding History	Granted to Cobar Consolidated Resources Limited Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd
General Conditions (EL6623 (Act 1992) Version 3.4)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control



Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL6623-2018-2020
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Cobar LALC



EL7345 (Act 1992)– Manuka Mi	ne Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	25 May 2009
Date Expires	25 May 2022
Current Term Effective Date	30 March 2017 (Renewal approved)
Current Area	59 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Security Held	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Annual Administrative Levy	\$120
Annual Rental Fee	\$3,540
Proposed Annual Expenditure	Year 1: \$100,000 Year 2: \$100,000 Year 3: \$100,000 Year 4: \$150,000 Year 5: \$150,000 (as per current approved Work Program WP-EL7345-2017-2022)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
Register eu Dealings	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
	<b>Security Review (Pending)</b> An application has been made to remove EL6623 from the current group security and hold an individual security of \$10,000. The group security will in turn reduce by \$10,000. The application remains pending at the time of writing this Report.
Tenement Holding History	Granted to Cobar Consolidated Resources Limited Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd
General Conditions (EL7345 (Act 1992) Version 3.1)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control



Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL7345-2017-2022
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC



EL7515 (Act 1992) – Manuka M	ine Project
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Date Granted	7 April 2010
Date Expires	7 April 2022
Current Term Effective Date	26 July 2017 (Renewal approved)
Current Area	5 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Security Held	\$60,000 (Joint Security EL6302, EL6482, EL6623, EL7345, EL7515)
Annual Administrative Levy	\$120
Annual Rental Fee	\$300
Proposed Annual Expenditure	Year 1: \$50,000
	Year 2: \$75,000
	Year 3: \$100,000
	Year 4: \$100,000 Year 5: \$100,000
	(as per current approved Work Program WP-EL7515-2017-2022)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
	<b>Security Review (Pending)</b> An application has been made to remove EL6623 from the current group security and hold an individual security of \$10,000. The group security will in turn reduce by \$10,000. The application remains pending at the time of writing this Report.
Tenement Holding History	Granted to Cobar Consolidated Resources Limited Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd
General Conditions (EL7515 (Act 1992) Version 3.3)	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control



Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	None recorded
Approved Work Program	WP-EL7515-2017-2022
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC



EL8498 (Act 1992) – Manuka Mine Project	
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current (Renewal Pending)
Date Granted	10 January 2017
Date Expires	10 January 2020
Current Term Effective Date	10 January 2017 (Grant) Refer to comments at paragraph 90. The EL will continue in force until the renewal application is determined. The renewal conditions will come into effect on the date the renewal is determined.
Current Area	48 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$10,000
Security Held	\$10,000
Annual Administrative Levy	\$100
Annual Rental Fee	\$2,880
Proposed Annual Expenditure (for forthcoming renewal term) Minerals Method/Purpose	Year 1: \$80,000 Year 2: \$120,000 Year 3: \$150,000 Year 4: \$200,000 Year 5: \$250,000 (as per proposed Work Program lodged with renewal application. Year 1 will commence on the renewal approval date.) Group 1 Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald. Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd. <b>Renewal (Pending)</b> An application to renew this EL was made on 20 January 2020. The renewal application currently remains pending.
Tenement Holding History	Application made 10 March 2015 by Black Oak Limited Nomination of new applicant to Manuka Resources Ltd approved 2016 Granted to Manuka Resources Ltd
General Conditions (ELA5158 (Act 1992) (Version 2))	<ol> <li>Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Contact Details; 8. Records;</li> <li>9. Environmental Incident Reporting; 10. Annual Activity Reporting; 11. &amp; 12. Change in Control</li> </ol>
Additional Conditions	13. Drilling Notification (omitted 27 November 2019); 14. Drilling Notification Additional; 15. Core and Sample Storage; 16. Core and Sample Retention and Disposal.



Activity Specific Conditions	Nil
Further Approvals	Nil
Approved Work Program	Work program reference number to be confirmed on renewal.
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC



ML1659 (Act 1992) – Manuka Mine Project	
Main Holder	Manuka Resources Ltd
Other Holders	Nil
Status	Current
Registered Mine Name	Wonawinta
Date Granted	23 November 2011
Date Expires	23 November 2032
Current Term Effective Date	23 November 2011 (Grant); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 December 2016.
Current Area	923.8 Hectares
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$5,515,000
Security Held	\$5,515,000
Annual Administrative Levy	\$55,150
Annual Rental Fee	\$6,004.70
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold, Silver, Copper, Lead, Zinc
Method/Purpose	Open cutting
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 December 2016.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding History	Granted to Silver Corporation of Australia Pty Ltd Transfer registered 16 December 2014 to Southern Cross Goldfields Limited Name change to Black Oak Minerals Limited Transfer registered 22 December 2016 to Manuka Resources Ltd
General Conditions	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental



(Mining Lease Conditions 2013 – Version 20 October 2016))	Incident Report (Condition 4 and 5 varied effective from 19 February 2018); 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Mine Operations Plan	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over all of Manuka Exploration Licences. A total of 62 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	An additional search focussed on the smaller Manuka Mining Licence was undertaken which recorded 20 Aboriginal Sites and 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Western LALC



EL5842 (Act 1992) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	19 April 2001
Date Expires	19 April 2021
Current Term Effective Date	3 July 2017 (Renewal approved)
Current Area	70 Units
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$10,000
Security Held	\$10,000
Annual Administrative Levy	\$100
Annual Rental Fee	\$4,200
Proposed Annual Expenditure	Year 1: \$180,000
	Year 2: \$185,000
	Year 3: \$220,000
	Year 4: \$205,000
	Year 5: \$160,000
	(as per current approved Work Program WP-EL5842-2017-2021)
Minerals	Group 1
Method/Purpose	Nil methods excluded
Registered Dealings	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Approval sought under condition 8 to prospect on native title land. <i>Ministers consent received 23 January 2006 (no registered native title claimant 16 January 2006).</i>
	Exempted Area Operations (Approved)
	Ministers consent to exercise rights conferred by the Act and the licence within Canbelego Common – Travelling Stock Route 9 December 2004.
	Ministers consent to exercise rights conferred by the Act and the licence within Travelling Stock and Camping Reserve No. 43512 and Reserve No. 752878 for Future Public Requirements 14 July 2011.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.



Tenement Holding History	Granted to Golden Cross Operations Pty Ltd Transfer registered 13 February 2009 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (EL5842 (Act 1992) (Version 3.3))	1. Work Program; 2. Native Title; 3. Community Consultation; 4. Protection of the Environment; 5. Security; 6. Rehabilitation; 7. Environmental Incident Reporting; 8. Annual Activity Reporting; 9. & 10. Change in Control
Additional Conditions	11. Drilling Notification (omitted 27 November 2019); 12. Drilling Notification Additional; 13 Activity Approvals Issued Prior to 1 March 2016.
Further Activity Approvals (recorded in grant instruments since 1 July 2015)	Nil
Approved Work Program	WP-EL5842-2017-2021 (Approved) (Transfer to Mt Boppy Resources)
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012. Registered dealings confirm that approval was sought under condition 8 to prospect on native title land. Approval was given on 23 January 2006. Refer to paragraph 128.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



ML1681 (Act 1992) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	12 December 2012
Date Expires	12 December 2012
Current Term Effective Date	12 December 2012 (Grant); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	188.1 Hectares
Surface Exception	Part Various
Depth Restriction	Nil
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950.00
Annual Rental Fee	\$1,222.65
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold, Silver, Lead, Zinc
Method/Purpose	Dumping or depositing mine residues or tailings; Open cutting; Use of environmental screens, walls, or barriers.
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. Note the condition had already been removed from the approved transfer conditions 22 June 2017.
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding History	Granted to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd



General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012. Refer to paragraph 129 on for details regarding the RTN process undertaken in relation to ML1681 prior to grant.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area. A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



MPL240 (Act 1973) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	17 January 1986
Date Expires	12 December 2033
Current Term Effective Date	8 July 2014 (Renewal approved); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	17.8 Hectares
Surface Exception	Nil
Depth Restriction	Whole 2 metres
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950.00
Annual Rental Fee	\$115.70
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Nil
Method/Purpose	Dam - The construction, maintenance or use (in or in connection with mining operations) of any one or more of the following: any reservoir, dam, drain or water race. Dumping of ore and mine residues - The removal, stockpiling, management or
	depositing of overburden, ore or tailings to the extent that it is associated with mineral extraction or mineral beneficiation.
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The



	register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Sumary	Granted to Epoch Mining NL Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name to 12 March 2008 to Polymetals Group Pty Ltd Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



MPL311 (Act 1973) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	8 December 1976
Date Expires	12 December 2033
Current Term Effective Date	8 July 2014 (Renewal approved – copy not sighted temporarily unavailable form DRG records); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	10.117 Hectares
Surface Exception	Nil
Depth Restriction	Whole 3 metres
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950
Annual Rental Fee	\$100
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold
Method/Purpose	Nil specified
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Summary	Granted to Epoch Mining NL Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name to 12 March 2008 to Polymetals Group Pty Ltd



	Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



GL3255 (Act 1906) – Mt Boppy	Gold Mine Project
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	20 May 1926
Date Expires	20 May 2033
Current Term Effective Date	8 July 2014 (Renewal approved); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	8.281 Hectares
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950
Annual Rental Fee	\$100
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold
Method/Purpose	Open cutting; Shaft sinking; Stoping; Tunnelling.
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Summary	Granted to Epoch Mining NL Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name to 12 March 2008 to Polymetals Group Pty Ltd



	Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



GL5836 (Act 1906) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	15 June 1965
Date Expires	15 June 2033
Current Term Effective Date	8 July 2014 (Renewal approved); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	6.045 Hectares
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950
Annual Rental Fee	\$100
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold
Method/Purpose	Treatment of tailings.
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Summary	Granted to Alpine Mining Company Pty Ltd Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name 12 March 2008 to Polymetals Group Pty Ltd



	Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



GL5848 (Act 1906) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	21 June 1972
Date Expires	12 December 2033
Current Term Effective Date	8 July 2014 (Renewal approved); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	8.625 Hectares
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950
Annual Rental Fee	\$100
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold
Method/Purpose	Treatment of tailings
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Summary	Granted to Alpine Mining Company Pty Ltd Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name 12 March 2008 to Polymetals Group Pty Ltd



	Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Additional Conditions	
Activity Specific Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



GL5898 (Act 1906) – Mt Boppy Gold Mine Project	
Main Holder	Mt Boppy Resources Pty Ltd
Other Holders	Nil
Status	Current
Date Granted	21 June 1972
Date Expires	12 December 2033
Current Term Effective Date	8 July 2014 (Renewal approved); Transfer conditions approved on 16 December 2016 replaced existing renewal conditions on registration of transfer 22 June 2017.
Current Area	7.512 Hectares
Surface Exception	Nil
Depth Restriction	Nil
Security Required	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Security Held	\$1,365,000 (Joint security ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898)
Annual Administrative Levy	\$1,950
Annual Rental Fee	\$100
Annual Expenditure Commitment	Not applicable. Condition 9 labour and expenditure condition on mining leases was omitted from the conditions effective 8 October 2018.
Minerals	Gold, Silver
Method/Purpose	Open cutting; Shaft sinking; Tunnelling.
Registered Dealings	Aggregation (Approved) 4 June 2014 for ML1681, ML311, MPL240, GL3255, GL5836, GL5848, GL5898.
	Agreements (Approved)
	Agreement registered 22 August 2018, "Royalty Agreement - Manuka" dated 30 May 2016, between Manuka Resources Ltd, Marcus Ayres, Michael Owen, Polymetals (Mt Boppy) Pty Ltd, Rescap Investments Pty Ltd and Simon Theobald.
	Agreement registered 5 July 2019, "General Security Agreement" dated 3 July 2019 between Amal Security Services Pty Limited, Manuka Resources Ltd and Mt Boppy Resources Pty Ltd.
	<b>Miscellaneous Approval (Approved)</b> Condition 4 and 5 amended 19 February 2018 to reduce the regulatory requirement of annual compliance and incident report to reporting when an incident occurs.
	<b>Miscellaneous Approval (Approved)</b> Approval to remove Labour and Expenditure/working requirement condition effective 8 October 2018. <i>Note the condition had already been removed from the approved transfer conditions 22 June 2017.</i>
	<b>Miscellaneous Remarks (Approved)</b> Refers to the appointment of PPB Advisory as administrator to the previous holder on 2 December 2015. The register confirms that this remark no longer applies as the tenement has been transferred to Manuka Resources.
Tenement Holding Summary	Granted to Alpine Mining Company Pty Ltd Transfer registered 22 August 1994 to Polymetals Australia Pty Ltd Transfer registered 2 May 2005 to Polymetals Mining Services Pty Ltd Change of name 12 March 2008 to Polymetals Group Pty Ltd



	Transfer registered 8 December 2008 to Polymetals (Mt Boppy) Pty Ltd Transfer registered 22 June 2017 to Mt Boppy Resources Pty Ltd
General Conditions (Mining Lease Conditions 2013 – Version 20 October 2016))	1. Notice to Landholders; 2. Rehabilitation; 3. Mining Operations Plan and Annual Rehabilitation Report; 4. Compliance Report; 5. Environmental Incident Report <i>(Condition 4 and 5 varied effective from 19 February 2018)</i> ; 6. Resource Recovery; 7. Security; 8. Cooperation Agreement; Exploration Reporting.
Special Conditions	Nil
Further Approvals	Nil
Approved Work Program	
Native Title Claim	Entirely within Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan native title determination application (NC2012/001), Registered 12 April 2012.
Aboriginal Heritage	A basic Aboriginal Heritage Information Management System (AHIMS) search was undertaken over Mt Boppys' Exploration Licence. A total of 33 Aboriginal Sites were recorded in the search area, with 0 Aboriginal places declared in or near the search area.
	A further search focussed on the Mt Boppy Mining Licences was undertaken which revealed 2 Aboriginal Sites and 0 Aboriginal places declared in or near the search area.
	No further searches have been undertaken at this time.
Local Aboriginal Land Council (LALC)	Nyngan LALC; Cobar LALC



## SCHEDULE 3: GENERAL TENEMENT CONDITIONS

ML (includes GL and MPL) - (Mining Lease Conditions 2013)	
General Condition	Summary
Notice to Landholders	The holder of an ML is required to serve notice of the grant or renewal of the lease in writing to each landholder, or by public notice in a local newspaper.
Rehabilitation	The holder must carry out rehabilitation of any disturbance resulting from activities carried out under the mining lease.
Mining Operations Plan and Annual	Mining Operations Plan – Condition 3
Rehabilitation Report	Prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and exploration, the holder must prepare a Mining Operations Plan (MOP) for approval by the Minister.
	Annual Rehabilitation Report - Condition 3(f) The holder must submit an annual rehabilitation report, outlining the progress of rehabilitation against measures and criteria provided within the approved MOP.
Non-Compliance Reporting	The holder must notify the Department of any breach of ML conditions or Regulations.
	(Condition 4. Compliance Report; and 5. Environmental Incident Report varied 1 May 2017.)
Environmental Incident Report	Environmental incident notifications and reports provided to the Environment Protection Authority under the <i>Protection of the Environment Operations Act</i> <i>1997</i> (NSW), must also be provided to the Department of Planning, Industry and Environment – Division of Resources and Geoscience.
Resource Recover	The holder must make the best effort to recover economically feasible minerals from the ML.
Security	The holder is to maintain a security deposit for the purpose of funding any obligations under the ML that may exist or arise in the future, such as rehabilitation requirements.
Cooperation Agreement	The holder must make every effort to enter into a cooperation agreement with the holder of any overlapping tenement.
Exploration Reporting	Geoscientific Reports (reports on exploration) must be prepared and submitted for each tenement (or group of tenements in the case of MLs for which group reporting has been approved) on an annual basis.



EL	
Activity Approval	Summary
Work Program	The holder must carry out the approved work program, including exploration activities, environmental, and community consultations, specified for each year of a licence.
Native Title	The holder must not undertake any work on any land or waters within a licence area on which native title has not been extinguished without the prior written consent of the Minister.
Community Consultation	The holder must carry out community consultation in relation to the planning and conduct of activities.
Protection of the Environment	The holder must prevent or minimise any harm to the environment arising from activities carried out.
Security	The holder must maintain a security deposit, to an amount sufficient to fund all obligations under a licence, including future obligations.
Rehabilitation	The holder must carry out rehabilitation of all disturbance caused by activities carried out under a licence to the satisfaction of the Minister.
Environmental Incident Reporting	The holder must provide environmental incident notifications and reports to the Department of Planning, Industry and Environment – Division of Resources and Geoscience, following the notification of any such incidents being provided to the Environment Protection Authority.
Annual Activity Reporting	Annual activity reports are a group of reports that the holder must submit within one month of the anniversary of a licence, and following the cancellation of a licence, including: Annual Exploration Report; Activity Summary and Expenditure Table; Rehabilitation Report; Community Relations Report; and resubmission of the approved Work Program, varied as necessary.
Change in Control	For licences held by a corporation or trust, the Minister's prior written approval is required before any change in control of the licence holder, or foreign acquisition of substantial control in the holder occurs, unless the change occurs as a result of the acquisition of shares or other securities on a registered stock exchange.
Additional Conditions	
Drilling Notification	Omitted 27 November 2019. This notification requirement now forms part of the activity approval process.
Drilling Notification Additional	The Department of Planning, Industry and Environment – Division of Resources and Geoscience must be informed, as soon as practicable, of the details of a coal seam discovered in a licence area.
Core and Sample Storage	The holder must take and properly label and store core samples and cuttings encountered during exploration undertaken on a licence.
Core and Sample Retention and Disposal	The holder must provide core cuttings and samples or data to the Minister as required, and upon termination of a licence, advise of plans for their storage or disposal.
Activity Approval Issued Prior to March 2016	On-ground assessable exploration activities undertaken under an activity approval prior to 1 March 2016, in addition to any requirements of that approval, are to be carried out according to current codes of practice relating to environmental management and produced water management.



## **SCHEDULE 4: LAND TENURE**

Western Lands Lease 6238 – Manuka Mine Project	
Holder	Manuka Resources Ltd
Land	Lot 1 on Deposited Plan 1164142
Estate	Perpetual Lease
Total Area	7,458.7 Hectares
Purpose of Lease	Grazing
Second Schedule	1. Land excludes minerals and is subject to reservations and conditions in favour of the Crown – see memorandum S700000C.
	2. Excepting any roads and resumed land not included in the lease.
	3. Western Lands Lease No. 6238.
	<ol> <li>Subject to the provisions of the Western Lands Act, 1901 particularly as regards payment of annual rent and other dues, restrictions on dealings and on subdivision – see section 18G and 18FA.</li> </ol>
	Purpose of lease – Grazing.
	AG344861 Area of lease 7458.7 hectares
	5. Inquiries, particularly in respect of lease conditions and/or subdivision of the lease should be made of the Department of Industry – Land and Water – Far West Region before dealing with this folio.
	6. AG269017 Property vegetation plan expiry date: 24/5/2026
	7. AP376843 Mortgage to Amal Security Services Pty Limited.
Notations	DP1189383 Note: Plan of acquisition (legal road network).
	Unregistered dealings: Nil.
Search Date	2 March 2020



Crown Licence LI 572570 – Manuka Mine Project		
Holder	Manuka Resources Ltd	
Land	Part Lot 3633 on Deposited Plan 766015 (Western Lands Lease 6239)	
Total Area	5,400 square metres	
Term	Commences on 9 February 2017 and continues in force until revoked by the Minister administering the Crown Lands Act.	
Permitted Purpose	For the purpose of pipeline and bore sites on the land contained within Western Lands Lease 6239.	
Rent	Due annually on the anniversary of commencement. Initial payment \$150. Future payments subject to CPI adjustment.	

## 7. Risk Factors

The Shares being offered under the Prospects are considered highly speculative. The proposed future activities of the Company are subject to a number of risks and other factors which may impact its future performance, financial condition and prospects. Some of these risks can be mitigated by the use of safeguards and appropriate controls. However, many of the risks are outside the control of the Directors and management of the Company and cannot be mitigated.

The risks described in this Section 7 are not an exhaustive list of the risks faced by the Company or by investors in the Company. The risks described in this Section 7 should be considered in conjunction with other information in this Prospectus. The risk described in, and others not specifically referred to in, this Section 7 may in the future materially and adversely affect the financial performance, condition and prospects of the Company and the value of the Shares being offered under this Prospectus. The Shares being offered under this Prospectus carry no guarantee with respect to the payment of dividends, the return of capital or the market value of those securities.

Investors should be aware that the performance of the Company may be affected and the value of its Shares may rise or fall over any given period. None of the Directors or any person associated with the Company guarantee the Company's performance, the performance of the Shares the subject of the Offer or the market price at which the Shares will trade. The Directors strongly recommend that potential investors consider the risks detailed in this Section 7, together with information contained elsewhere in this Prospectus, and consult their professional advisers, before they decide whether or not to apply for Shares.

## 7.1 Company Specific Risks

## Nature of mineral exploration and mining

The business of mineral exploration, development and production is subject to a number of material risks. The success of the Company's business depends, amongst other things, on successful exploration and/or acquisition of reserves, securing and maintaining title to tenements and consents, successful development and production in accordance with expectation and successful management of the operations. Exploration and mining are speculative undertakings which may be hampered by force majeure events, land claims and unforeseen mining and/or mechanical problems. Increased costs, lower output or high operating costs may all contribute to make a project less profitable than expected at the time of the development decision. There is no assurance that the Company's current or planned processing activities will continue or commence, as applicable, as expected.

## **Operational risk**

The operations of the Company may be affected by various factors many of which are beyond the control of the Company, including failure to locate or identify additional mineral deposits, failure to achieve predicted grades in exploration or mining, operational and technical difficulties encountered in mining, difficulties in commissioning and/or operating plant and equipment (including either the Wonawinta Processing Plant or the Company's soon-to-be-commissioned elution circuit), mechanical failure or plant breakdown, unanticipated metallurgical problems which may affect extraction costs, adverse weather conditions, industrial and environmental accidents, industrial disputes and unexpected shortages or increases in the costs of consumables, spare parts, plant and equipment, fire, explosions and other incidents beyond the control of the Company.

#### Financial indebtedness risk

The Company manages its various financial obligations by preparing detailed cash flow forecasts and monitoring actual cash flows. However, the Company's ability to service its various financial obligations (the most material of which are set out in the "Company Overview" Section and in Sections 4, 8.1 and 8.2) may be impaired by the occurrence of any number of factors including the occurrence of any of the risk factors noted in this Prospectus. In such circumstances and if the Company were unable to obtain sufficient alternative funding, its creditors would be able to exercise their security over the Company's assets or pursue alternative remedies any of which would likely have a material adverse effect on the Company's financial condition, prospects and ability to continue as a going concern.

## Commodity price volatility

As the Company's future revenues will primarily be derived from the sale of precious metals, any future earnings generated by the Company will be closely related to the market prices for precious metals (which can vary materially during short periods of time). Commodity prices fluctuate and are affected by numerous factors beyond the control of the Company. These factors include supply and demand fluctuations for precious and base metals, forward selling by major producers, and production cost levels in major gold and silver producing regions.

Moreover, commodity prices are also affected by macroeconomic factors such as expectations regarding inflation, interest rates and global and regional demand for, and supply of, the precious metals as well as general global economic conditions. These factors may also have an adverse effect on the Company's exploration, development and production activities, as well as on its ability to fund those activities.

#### Currency volatility

International prices of various commodities, including gold and silver, are denominated in United States dollars, whereas the income and expenditure of the Company are and will be taken in account in Australia dollars, consequently exposing the Company to fluctuations and volatility of the rate of exchange between the United States dollar and the Australian dollar as determined by the international markets.

## Liquidity risk and concentration of Shareholdings

On completion of the Offer, and assuming the Offer is fully subscribed, the existing Shareholders of the Company will hold a significant proportion of the total issued Share capital of the Company. Under Chapter 9 of the ASX Listing Rules, a number of the Shares held by these existing Shareholders will be subject escrow which may cause a liquidity risk, as some of these shares may not be traded on ASX for up to a period of 24 months. Furthermore and regardless of the number of Shares subject to escrow (and the duration of the applicable escrow period), there is no guarantee that there will be an ongoing liquid market for Shares. If illiquidity arises, there is a risk that Shareholders will be unable to realise their investment in the Company.

### Title risk

The Company's mining and exploration activities are dependent upon the maintenance (including renewal) of the tenements in which the Company has or acquires an interest. Maintenance of the Company's tenements is dependent on, among other things, the Company's ability to meet the licence conditions imposed by relevant authorities including compliance with the Company's work program requirements which, in turn, is dependent on the Company being sufficiently funded to meet those expenditure requirements. Although the Company has no reason to think that the tenements in which it currently has an interest will not be renewed, there is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed by the relevant granting authority.

## Exploitation, exploration and mining licences

The Company's mining exploration activities are dependent upon the grant, or as the case may be, the maintenance of appropriate licenses, which may be withdrawn or made subject to limitations. The maintaining of licenses, obtaining renewals, or getting licenses granted, often depends on the Company being successful in obtaining required statutory approvals for its proposed activities and that the licenses, tenements, leases, permits or consents it holds will be renewed as and when required. There is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed in connection therewith.

#### **Mineral Resource Estimates and classification**

The Mineral Resource estimates are estimates only and no assurances can be given that any particular level of recovery of mineral resources will in fact be realised. Mineral Resource estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which are valid when originally calculated may change significantly when new information or techniques become available. In addition, by their very nature, Mineral Resource estimates are necessarily imprecise and depend to some extent on interpretations, which may prove to be inaccurate.

A significant proportion of the Company's Mineral Resource estimates are in the Inferred Mineral Resources category, which is the lowest of the three (3) Mineral Resource categories defined by the JORC Code, reflecting limited sampling and a relatively low degree of geological certainty. While material may only be included in a Mineral Resource calculation if there are reasonable prospects of eventually economically extracting it, investors should be aware that the inclusion of a material in a Mineral Resource estimate does not require a conclusion that a material may be economically extracted at the yield indicated or at all. Mineralisation only qualifies to be categorised as an Ore Reserve once it has been demonstrated to be economically recoverable.

Mineral Resources are delineated, in order of increasing confidence, into Inferred, Indicated and Measured Mineral Resources. The JORC Code defines an Inferred Mineral Resource as: "that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes".

According to the commentary accompanying the JORC Code: "the Inferred category is intended to cover situations where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data are insufficient to allow the geological and/or grade continuity to be confidently interpreted. While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur. Confidence in the estimate of Inferred Mineral Resources is not sufficient to allow the results of the application of technical and economical parameters to be used for detailed planning in pre-feasibility or feasibility studies. For this reason, there is no direct link from an Inferred Mineral Resource to any category of Ore Reserves. Caution should be exercised if this category is considered in technical and economic studies such as scoping studies".

Only Mineral Resources in the Measured or Indicated Mineral Resources categories can be converted to the status of an Ore Reserve. As a result, any future development of the Company's Inferred Mineral Resources will depend on the Company being able to further upgrade the Inferred Mineral Resources to the Measured or Indicated categories, and/or discover additional resources in the Measured or Indicated categories, and subsequently convert them to Ore Reserves by demonstrating that they can be economically extracted under reasonably assumed operating conditions.

As further information becomes available through additional fieldwork and analysis, the Company's Mineral Resource estimates are likely to change. This may result in alterations to development and mining plans which may, in turn, adversely affect the Company's operations.

#### **Environmental risk**

The Company's projects are subject to New South Wales and Federal Government regulations regarding environmental matters. These Governments and other authorities that administer and enforce environmental laws determine these requirements. As with all exploration projects and mining operations, the Company's activities are expected to have an impact on the environment. The Company intends to conduct its exploration and production activities in an environmentally responsible manner and in accordance with applicable laws.

The cost and complexity of complying with the applicable environmental laws and regulations may prevent the Company from being able to develop additional economically viable mineral deposits.

The Company also notes that there are certain risks inherent to its activities, such as accidental spills, leakages or other unforeseen circumstances, which could subject the Company to extensive liability.

Further, the Company may require additional approvals from the relevant authorities before it can undertake activities that are likely to impact the environment. Failure to obtain such approvals will prevent the Company from undertaking its desired activities. The Company is unable to predict the effect of additional environmental laws and regulations, which may be adopted in the future, including whether any such laws or regulations would materially increase the Company's cost of doing business or affect its operations in any area.

There can be no assurances that new environmental laws, regulations or stricter enforcement policies, once implemented, will not oblige the Company to incur significant expenses and undertake significant investments in such respect which could have a material adverse effect on the Company's business, financial condition and results of operations.

### Change in regulations

Any material adverse changes in government policies, legislation or shifts in political attitude in New South Wales or Australia that affect mineral mining and exploration activities, tax laws, royalty regulations, government subsidies and environmental issues may affect the viability of a project or the Company. No assurance can be given that amendments to current laws and regulations or new rules and regulations will not be enacted, or that existing rules and regulations will not be applied in a manner which could substantially limit or affect the Company's exploration and operating activities.

## Payment obligations

Under the licences and certain other contractual agreements to which the Company is or may in the future become party, the Company is or may become subject to payment and other obligations. In particular, mineral licence holders are required to expend the funds necessary to meet the minimum work commitments attaching to the licences. Failure to meet these work commitments will render the licence liable to be cancelled.

#### Dependence on key personnel

The Company is reliant on a number of key personnel and consultants. The loss of one or more of these key contributors could have an adverse impact on the business of the Company.

It may be difficult for the Company to attract and retain suitably qualified and experienced people, due to the relatively small size of the Company, compared with other industry participants.

#### Equipment risk

The operations of the Company could be adversely affected if essential equipment and/or processing fails.

#### Commercial risks of mineral exploration and extraction

The Tenements are at various stages of exploration and potential investors should understand that mineral exploration and development are high-risk undertakings. There can be no assurance that exploration of the Tenements or any other tenements that may be acquired in the future, will result in the discovery of any economic deposits. Even if the Company identifies viable deposits, there is no guarantee that the ore deposit can be economically exploited.

#### **Dilution risk**

Future equity offerings by the Company may dilute the percentage ownership of the Company by existing Shareholders. In certain circumstances, additional securities issued by the Company in the future may have rights, preferences or privileges attached to them that are senior, to or otherwise adversely affect, those attached to the Shares.

#### Future capital requirements

The Company's growth through its proposed and future drilling and exploration campaigns will require substantial expenditure. There can be no guarantees that the Company's cash reserves together with the funds raised by the Offer will be sufficient to successfully achieve all the objectives of the Company's overall business strategy.

If the Company is unable to use debt or equity to fund expansion after the substantial exhaustion of the net proceeds of the Offer and existing working capital, there can be no assurance that the Company will have sufficient capital resources for that purpose, or other purposes, or that it will be able to obtain additional resources on terms acceptable to the Company or if at all.

Any additional equity financing may be dilutive to the Company's existing Shareholders and any debt financing if available, may involve restrictive covenants, which limit the Company's operations and business strategy. The Company's failure to raise capital if and when needed could delay or suspend the Company's business strategy and could have a material adverse effect on the Company's activities.

### Third party risk

The operations of the Company require the involvement of a number of third parties, including suppliers, contractors and clients. Financial failure, default or contractual non-compliance on the part of such third parties may have a material impact on the Company's operations and performance. It is not possible for the Company to predict or protect the Company against all such risks.

#### Weather

The Wonawinta Silver Project is accessed via a short section of unsealed shire roads and a creek crossing. In the event of heavy rainfall, a section of the unsealed road may not be trafficable until excess water has discharged or evaporated in the normal course. If this were to occur, the Company's activities will likely be temporarily adversely impacted.

## 7.2 Industry Specific Risks

## Metallurgy

Metal and/or mineral recoveries are dependent upon the metallurgical process, and by its nature contain elements of significant risk such as:

- (a) identifying a metallurgical process through test work to produce a saleable metal and/or concentrate;
- (b) developing an economic process route to produce a metal and/or concentrate; and
- (c) changes in mineralogy in the ore deposit can result in inconsistent metal recovery, affecting the economic viability of the project.

#### Native Title

The *Native Title Act 1993* (Cth) (**Native Title Act**) recognises and protects the rights and interests in Australia of Aboriginal and Torres Strait Islander people in land and waters, according to their traditional laws and customs. There is significant uncertainty associated with Native Title in Australia and this may impact on the Company's operations and future plans.

Native Title can be extinguished by valid grants of land (such as freehold title) or waters to people other than the Native Title holders or by valid use of land or waters. It can also be extinguished if the indigenous group has lost its connection with the relevant land or waters. Native Title is not necessarily extinguished by the grant of mining leases, although a valid mining lease prevails over Native Title to the extent of any inconsistency for the duration of the title.

Tenements granted before 1 January 1994 are valid or validated by the Native Title Act.

For tenements to be validly granted (or renewed) after 1 January 1994, the future act regime established by the Native Title Act must be complied with.

The existence of a Native Title claim is not an indication that Native Title in fact exists on the land covered by the claim, as this is a matter ultimately determined by the Federal Court.

The Company must also comply with Aboriginal heritage legislation requirements which require heritage survey work to be undertaken ahead of the commencement of mining operations.

### Insurance

The Company has insured its operations in accordance with industry practice. However, insurance of all risks associated with exploration and mining operations are not always available and, where it is available, the cost may be high. The Company will have insurance in place considered appropriate for the Company's needs.

The business of the Company is subject to a number of risks and hazards generally, including adverse environmental conditions, industrial accidents, labour disputes, unusual or unexpected geological conditions, ground or slope failures, cave-ins, changes in the regulatory environment and natural phenomena such as extreme weather conditions, floods and earthquakes. Such occurrences could result in damage to mineral properties, buildings, personal injury or death, environmental damage to properties of the Company or others, delays in mining, monetary losses and possible legal liability.

Although the Company maintains insurance to protect against certain risks in such amounts as it considers to be reasonable, its insurance will not cover all the potential risks associated with its operations and insurance coverage may not continue to be available or may not be adequate to cover any resulting liability.

It is not always possible to obtain insurance against all such risks and the Company may decide not to insure against certain risks because of high premiums or other reasons. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Company or to other companies in the mining industry on acceptable terms.

The occurrence of an event that is not covered or fully covered by insurance could have a material adverse effect on the business, financial condition and results of the Company. In addition, there is a risk that an insurer defaults in the payment of a legitimate claim by the Company.

## Occupational health and safety risk

The Company is committed to providing a healthy and safe environment for its personnel, contractors and visitors. Mining activities have inherent risks and hazards. The Company provides appropriate instructions, equipment, preventative measures, first aid information and training to all stakeholders through its occupational, health and safety management systems.

The Company and Mt Boppy Resources has previously been issued with various statutory notices in relation to the work, health and safety matters under the relevant work, health and safety legislation. As at the date of the Prospectus, the Company and/or Mt Boppy Resources (as applicable) have complied with the requirements of all such relevant statutory notices.

## 7.3 General Risks

## **Securities investments**

Applicants should be aware that there are risks associated with any securities investment.

Prior to the Offer, there was no public market for the Shares. There is no guarantee that an active trading market in the Shares will develop or that the price of the Shares will increase. The prices at which the Shares trade may be above or below the Offer price and may fluctuate in response to a number of factors.

## Economic risk

Changes in the general economic climate in which the Company operates may adversely affect the financial performance of the Company. Factors that may contribute to that general economic climate include the level of direct and indirect competition against the Company, include, but not are but not limited to:

- (a) general economic conditions;
- (b) changes in Government policies, taxation and other laws;
- (c) the strength of the equity and share markets in Australia and throughout the world;
- (d) movement in, or outlook on, exchange rates, interest rates and inflation rates;
- (e) industrial disputes in Australia and overseas;
- (f) changes in investor sentiment toward particular market sectors;
- (g) financial failure or default by an entity with which the Company may become involved in a contractual relationship; and
- (h) natural disasters, social upheaval or war.

#### Legal proceedings

Legal proceedings may arise from time to time in the course of the business of the Company. Legal proceedings brought by third parties including but not limited to customers, business partners or employees could negatively impact the business in the case where the impact of such litigation is greater than or outside the scope of the Company's insurance. As at the date of this Prospectus, there are no material legal proceedings affecting the Company and the Directors are not aware of any legal proceedings pending or threatened against or affecting the Company.

#### Unforeseen expenses

While the Company is not aware of any expenses that may need to be incurred that have not been taken into account, if such expenses were subsequently incurred, the expenditure proposals of the Company may be adversely affected.

#### Macroeconomic risks

Changes in the general economic outlook in Australia and globally may impact the performance of the Company and its projects.

#### Pandemic and other public health risks

The ongoing COVID-19 pandemic and any other possible future outbreaks of viruses may have a significant adverse effect on the Company. The spread of such diseases amongst the Company's employees, contractors, suppliers and logistic networks, as well as any quarantine and isolation requirements, may reduce the company's ability to operate and have detrimental financial implications.

More broadly the Company may be affected by the macroeconomic effects and ensuing financial volatility resulting from the pandemic and any other possible outbreaks. While the final effects of the COVID-19 pandemic or other possible disease outbreaks are difficult to assess, it is possible that it will have a substantial negative effect on the economies where the Company operates in and could have an adverse effect on the Company's financial position.

#### Broader general risks

There are also a number of broader general risks which may impact the Company's performance. These include:

- (a) abnormal stoppages in normal business operations due to factors such as war, political or civil unrest, infrastructure failure or industrial disruption; and
- (b) higher than budgeted costs associated with processing, mining and exploration activities.

#### Taxation risk

The acquisition and disposal of Shares will have tax consequences which will differ for each investor depending on their individual financial circumstances. All potential investors in the Company are urged to obtain independent financial advice regarding the tax and other consequences of acquiring Shares. To the maximum extent permitted by law, the Company, its officers and each of their respective advisers accept no liability or responsibility with respect to any tax consequences of applying for Shares under this Prospectus.

#### Accounting standards

Changes to any applicable accounting standards or to any assumptions, estimates or judgments applied by management in connection with complex accounting matters may adversely impact the Company's financial statements, results or condition.

#### Concluding comments on risks

The above list of risk factors ought not to be taken as exhaustive of the risks faced by the Company or by investors in the Company. The above factors, and others not specifically referred to above, may in the future materially affect the financial performance of the Company and the value of the Shares offered under this Prospectus. Therefore, the Shares to be issued pursuant to this Prospectus carry no guarantee with respect to the payment of dividends, returns of capital or the market value of those Shares. Potential investors should consider that the investment in the Company is highly speculative and should consult their professional adviser before deciding whether to apply for Shares pursuant to this Prospectus.

## 8. Material Contracts

The Directors consider that the material contracts described below are those which an investor would reasonably regard as material (or potentially material) and which investors and their professional advisers would reasonably expect to find disclosed in this Prospectus for the purpose of making an informed assessment of an investment in the Company under the Offer. This section contains a general summary of the material contracts and their substantive terms which are not otherwise disclosed elsewhere in the Prospectus.

## 8.1 Debt Facilities with TransAsia and T-A Investments

As noted in the "Company Overview" Section, the Company has, as at the Prospectus Date, drawn US\$14.0 million<sub>39</sub> under the Core Debt Facility and approximately A\$2.17 million under the Interim Debt Facility<sub>40</sub>. These facilities were entered into to allow the Company to repay a pre-existing bridging facility (which has now been repaid) and for general working capital purposes. The key terms of these two (2) facilities are as follows:

## **Core Debt Facility**

- (a) interest is payable by the Company on the Core Debt Facility's outstanding balance (which is US\$14 million) at a rate of 14% per annum;
- (b) the Company must pay the interest accrued on the Core Debt Facility's outstanding balance (which is US\$14 million) quarterly; and
- (c) the Company must repay the outstanding amount owing under the Core Debt Facility in 3 tranches. The amount of and timing for each of these repayments is as follows:
  - (i) US\$2.5 million is due for repayment on 5 October 2020;
  - (ii) US\$5 million is due for repayment on 3 February 2021; and
  - (iii) US\$6.5 million is due for repayment on 5 April 2021.

## Interim Debt Facility

- (a) interest is payable by the Company on the first \$1.25 million drawn by the Company under the Interim Debt Facility at 25% per annum;
- (b) interest is payable by the Company on the remaining drawn portion of the Interim Debt Facility at 18% per annum;
- (c) the Company must pay the interest accrued on the outstanding balance under the Interim Debt Facility quarterly; and
- (d) the Company must repay the Interim Debt Facility in full on 11 June 2020.

The Company will repay the Interim Debt Facility in full on 11 June 2020 (meaning that the Interim Debt Facility will be extinguished before Admission) from operating cash flow.

#### **Consequences of default**

The Core Debt Facility is secured by the grant of security under the General Security Agreement, the Real Property Mortgages and the Water Mortgage. The General Security Agreement provides for the grant of a general security interest in all present and after acquired property of the Company (and of Mt Boppy Resources) and the grant of a mortgage over mining tenements held by the Company (and by Mt Boppy Resources). The security interest is granted in favour of the Security Trustee, who holds the security interest on trust for TransAsia. The security under the General Security Agreement, the Real Property Mortgages and the Water Mortgage will be released upon the full repayment of the Core Debt Facility, together with any applicable fees and outstanding interest. Accordingly, if the Company is unable to repay the Core Debt Facility as and when it is required to under the terms of that facility, TransAsia will be entitled to enforce the terms of the Security Trust Deed in which case, the Company may not be able to continue as a going concern.

39 Equivalent to approximately A\$21.50 million based on an assumed AUD/USD exchange rate of approximately 0.65. This facility is currently fully drawn.

<sup>40</sup> The Interim Debt Facility will be repaid by the Company in full on 11 June 2020.

## 8.2 Summary of working capital and general purpose financing facilities

The Company will also have an additional (that is, in addition to the US\$14 million that the Company owes under the Core Debt Facility), approximately A\$3.16 million in outstanding debt owing on Admission. This total extra amount owed by the Company is comprised of the following separate working capital loans:

#### **Rescap Investments Working Capital Loan**

On Admission, the Company expects that it will owe ResCap Investments approximately \$1.99 million pursuant to an unsecured working capital loan. This loan accrues interest and is repayable in the manner specified in the table set out below.

#### **Gleneagle Securities Working Capital Loan**

On Admission, the Company expects that it will owe Gleneagle Securities approximately \$0.50 million pursuant to an unsecured working capital loan. This loan accrues interest and is repayable in the manner specified in the table set out below.

### Hindsight Working Capital Loan

On Admission, the Company expects that it will owe Hindsight Trading approximately \$0.42 million pursuant to an unsecured working capital loan. This loan accrues interest and is repayable in the manner specified in the table set out below.

### NAB Working Capital Loan

On Admission, the Company expects that it will owe NAB approximately \$0.25 million pursuant to an unsecured working capital loan. This loan accrues interest and is repayable in the manner specified in the table set out below.

The following table summarises the key details of the various debt facilities/loans that the Company expects that it will have on Admission.

Lender	Amount Owing	Interest Rate	Maturity Date	Other Key Term/s
TransAsia	\$21,500,000	14%	Various - See Section 4.11 and Section 8.1	Various - See Section 4.11 and Section 8.1
ResCap Investments	\$1,988,716	16%	Repayable from the Company's available financial resources after the repayment of the Core Debt Facility and in any event by no later than 31 March 2022	Subordinate to Core Debt Facility and Interim Debt Facility See Section 4.11 and Section 8.2
Gleneagle Securities	\$498,140	12%	Repayable from the Company's available financial resources after the repayment of the Core Debt Facility and in any event by no later than 31 March 2022	Subordinate to Core Debt Facility and Interim Debt Facility See Section 4.11 and Section 8.2
Hindsight Trading	\$419,000	16%	31 December 2020	Subordinate to Core Debt Facility and Interim Debt Facility See Section 4.11 and Section 8.2
NAB	\$250,000	4.5%	30 November 2020	Repayable in 6 equal instalments See Section 4.11 and Section 8.2

## 8.3 Repayment of debt

During the first 12 months following Admission, the Company expects that it will be able to produce up to approximately 22,000 to 24,000 oz of gold by:

- continuing to truck gold-loaded carbon for further processing at Como Carbon Services' refinery in Perth, Western Australia as necessary and until the Company's soon-to-be-commissioned modular elution circuit has been commissioned<sup>41</sup>; and
- utilising the Company's soon-to-be-commissioned modular elution circuit as soon as it has been commissioned to produce gold doré onsite at the Wonawinta Silver Project from the remainder of the Company's stockpiled gold bearing ore and easily extractable reserves from the Mt Boppy Gold Project.

It is on this basis that the Directors believe that the Company will be able to generate sufficient cash flow from operations to enable it to repay all of its debts which fall due for repayment during the first 12 months following the Company's Admission, the most material of which are:

- tranche 1 under the Core Debt Facility of US\$2.5 million which is required to be repaid on 5 October 2020;
- tranche 2 under the Core Debt Facility of US\$5.0 million which is required to be repaid on 3 February 2021; and
- tranche 3 under the Core Debt Facility of US\$6.5 million which is required to be repaid on 5 April 2021.

## 8.4 Royalty Agreement

## Manuka Royalty Agreement

On 30 May 2016, the Company, Polymetals, Mr Simon Theobald, Mr Marcus Ayres, Mr Michael Owen and ResCap Investments entered into a royalty agreement (**Manuka Royalty Agreement**), as part consideration for the sale of the assets of the Wonawinta Silver Project to the Company, pursuant to which (among other things):

- (a) the Company is required to pay A\$33.00 per troy ounce of gold produced from:
  - (i) any ore processed in the Wonawinta Processing Plant (irrespective of the source of that ore (excluding ore from the Mt Boppy Gold Project); and
  - (ii) any ore extracted or recovered from the Wonawinta Silver Project (irrespective of where that ore is processed);
- (b) the royalty is payable quarterly in arrears;
- (c) the total royalty payable is capped at \$495,000;
- (d) the royalty does not apply to any silver produced from the Wonawinta Silver Project;
- (e) the Company's obligations under the Manuka Royalty Agreement are guaranteed by ResCap Investments.

#### Mt Boppy Royalty Agreement

On 30 May 2016, the Company, Polymetals, Mr Simon Theobald, Mr Marcus Ayres, Mr Michael Owen and ResCap Investments also entered into a separate royalty agreement (**Mt Boppy Royalty Agreement**), as part consideration for the purchase of the Mt Boppy Gold Project by Mt Boppy Resources, pursuant to which (among other things):

<sup>41</sup> Until the Company's modular elution circuit has been commissioned (noting that the Company expects that its modular elution circuit will be commissioned and fully operational before Admission), stockpiled gold ore from the Mt Boppy Gold Project will continue to be trucked from the Mt Boppy Gold Project to the Wonawinta Processing Plant for processing with carbon in a process that converts that trucked gold ore into an intermediate stage gold-loaded carbon. That intermediate stage gold-loaded carbon will then be trucked from the Wonawinta Processing Plant to Como Carbon Services' refinery in Perth for further processing. As soon as the Company's modular elution circuit has been commissioned however, the Company will process all remaining gold ore and easily recoverable reserves from the Mt Boppy Gold Project onsite at the Wonawinta Processing Plant.

- the Company is required to pay A\$33.00 per troy ounce of gold produced from any ore extracted or recovered from the ground covered by GL5848, GL5898, GL3255, GL5836, MPL 0240, ML 0311 and ML 1681) (and irrespective of where that ore is processed);
- (b) the royalty is payable quarterly in arrears;
- (c) the total royalty payable is capped at \$495,000;
- (d) the royalty does not apply to any silver produced from either the Mt Boppy Gold Project or the Wonawinta Silver Project; and
- (e) the Company's obligations under the Mt Boppy Royalty Agreement are guaranteed by ResCap Investments.

#### **Meadowhead Royalty Agreement**

Pursuant to a royalty agreement attaching to the Mt Boppy Gold Project, the Company is also potentially required to provide Meadowhead Investments Pty Ltd (**Meadowhead**) with 3% of all gold produced from any of the existing mining leases associated with the Mt Boppy Gold Project. The Company is seeking legal advice in relation to the enforceability of this royalty agreement given technical issues associated with the assignment of the royalty by the previous owners of the Mt Boppy Gold Project to Meadowhead.

## 8.5 Key Employment Agreements

The Company has entered into an executive services agreement with Mr Dennis Karp in respect to his employment as the Executive Chairman of the Company (**Executive Service Agreement**). The principal terms of the Executive Service Agreement are as follows:

- (a) Mr Karp will receive:
  - (i) an annual salary of \$262,800 (inclusive of superannuation); and
  - (ii) 1.5 million Options with the terms and conditions detailed in Section 1.8;

(b) Mr Karp may terminate the agreement by giving 12 weeks' notice in writing to the Company; and

(c) the Company may terminate the agreement (without cause) by giving Mr Karp 12 weeks' written notice or by making payment in lieu of notice.

The Company has entered into an executive services agreement with Mr Haydn Lynch in respect to his employment as the Chief Operations Officer of the Company (**Executive Service Agreement**). The principal terms of the Executive Service Agreement are as follows:

- (a) Mr Lynch will receive:
  - (i) an annual salary of \$262,800 (inclusive of superannuation); and
  - (ii) 1.5 million Options with the terms and conditions detailed in Section 1.8;
- (b) Mr Lynch may terminate the agreement by giving 12 weeks' notice in writing to the Company; and
- (c) the Company may terminate the agreement (without cause) by giving Mr Lynch 12 weeks' written notice or by making payment in lieu of notice.

The Company has also entered into an executive services agreement with Mr David Power in respect to his employment as the Operations Manager of the Company (**Executive Service Agreement**). The principal terms of the Executive Service Agreement are as follows:

- (a) Mr Power will receive an annual salary of \$219,000 (inclusive of superannuation);
- (b) Mr Power may terminate the agreement by giving 4 weeks' notice in writing to the Company; and
- (c) the Company may terminate the agreement (without cause) by giving Mr Power 4 weeks' written notice or by making payment in lieu of notice.

## 8.6 Non-Executive Director Appointment Letters

The Company has entered into non-executive director appointment letters with Mr Anthony McPaul and Dr Nick Lindsay on the following key terms:

- (a) Mr McPaul will receive an annual remuneration of \$45,000 (inclusive of GST)<sub>42</sub>;
- (b) Dr Lindsay will receive an annual remuneration of \$45,000 (inclusive of GST)<sub>43</sub>; and
- (c) the appointment shall cease if the non-executive director:
  - (i) resigns;
  - (ii) is disqualified under the Corporations Act or the Constitution from being a company director; or
  - (iii) is removed as a director in accordance with the Corporations Act or the Constitution.

## 8.7 Deeds of Indemnity

The Company has entered into standard deeds of indemnity, access and insurance with each of the Directors. Pursuant to those deeds, the Company has undertaken, consistent with the Corporations Act, to indemnify each Director in certain circumstances and to maintain directors' and officers' insurance cover in favour of the Director during the period of their appointment and for seven (7) years after the Director has ceased to be a Director. The Company has further undertaken with each Director to maintain a complete set of the Company's board papers and to make them available to the Director for seven (7) years after the Director has ceased to be a Director.

## 8.8 Sublease

The Company has entered into a lease agreement with Maritime Nominees Pty Ltd for Suite 405, Level 4, Grafton Bond Building, 201 Kent Street, Sydney NSW 2000 to the Company, for a term of 2 years (ending on 31 December 2021). The premises will be used by the Company for commercial and business purposes. Under the terms of the sublease, the Company will pay to Maritime Nominees Pty Ltd an annual rent of \$130,725 (plus GST).

## 8.9 Mining Agreement

The Company has entered into a contract mining agreement with Neill Mining and Crushing Services Pty Ltd ACN 638 159 172 for the provision of mining services and equipment at the Mt Boppy Gold Project. The contract duration is from 1 April 2020 to 31 March 2021 and covers the mining, blasting and hauling of ore and waste as described in the mining plan.

## 8.10 Earthworks for Tailing Storage Facility

The Company has entered into an earthworks agreement with Neill Earthmoving Pty Ltd ACN 064 536 974 (**Neill Earthmoving**) on 30 March 2020 pursuant to which Neill Earthmoving will provide bulk earthworks for the completion of the stage 2 embankment raise on the Wonawinta TSF.

## 8.11 Broker Engagement Letter

On 20 February 2020, the Broker and the Company entered into an engagement letter (**Broker Engagement Letter**) pursuant to which the Company engaged the Broker to assist the Company co-ordinate, market and manage the General Public Offer. In accordance with the

42 Mr McPaul is engaged as a Director of the Company via TMCPC Pty Ltd ACN 615 803 668, an entity which he controls.

43 Mr Lindsay is engaged as a Director of the Company via Lindsay Rueda Services Pty Ltd ACN 122 026 895, an entity which he controls.

Broker Engagement Letter (and as is customary with these types of arrangements):

- the Company has agreed to indemnify and hold harmless the Broker, its related bodies corporate and each of their respective directors, officers, employees, advisers and agents against any losses suffered or incurred in connection with the General Public Offer;
- the Company has also have given representations, warranties and undertakings to the Broker in connection with (among other things) the conduct of the General Public Offer and the contents of the Prospectus; and
- the Company has agreed to pay the Broker a selling fee of 6% of the gross proceeds raised under the General Public Offer (excluding GST) and to issue the Broker with 10,000,000 Options the terms of which are set out in Section 1.8 on completion of the Offer.

The Broker has not authorised or caused the issue of this Prospectus and takes no responsibility for any information in this Prospectus or any action taken by any prospective investor on the basis of any such information. To the maximum extent permitted by law, the Broker excludes and disclaims all liability, for any expenses, losses, damages or costs incurred by any prospective investor as a result of their participation in the General Public Offer and the information in this Prospectus being inaccurate or incomplete in any way for any reason, whether by negligence or otherwise.

## 9. Additional Information

## 9.1 Rights attaching to Shares

A summary of the rights and liabilities attaching to the Shares being offered for issue under the Offer is detailed below. This summary is qualified by the full terms of the Constitution (a copy of which is available from the Company on request and free of charge) and does not purport to be exhaustive or to constitute a definitive statement of the rights and liabilities of Shareholders. These rights and liabilities can involve complex questions of law arising from the interaction of the Constitution with various statutory, common law and ASX Listing Rule requirements. For a Shareholder to obtain a definitive assessment of the rights and liabilities which attach to the Shares in any specific circumstances, the Shareholder should seek legal advice.

## (a) Issue of further Shares

The Board may, subject to the Constitution, Corporations Act and ASX Listing Rules issue or grant options for, or otherwise dispose of, Shares in the Company on such terms as the Board decides.

## (b) **Preference Shares**

The Company may issue preference shares including preference shares which are, or at the option of the Company or a holder are, liable to be redeemed or convertible into Shares. The rights attaching to preference shares are those set out in Schedule 1 of the Constitution unless other rights have been decided by the Board under the terms of issue of any such preference shares.

## (C) Classes of Shares

The procedure set out in the Constitution must be followed to vary any rights attaching to Shares (or any other class of shares). Under the Constitution, and subject to the Corporations Act, ASX Listing Rules and the terms of issue of a particular class of shares, the rights attaching to Shares (or any other class of shares) may be varied:

- with the consent in writing of the holders of at least 75% of the issued shares of that class; or
- by special resolution passed at a separate general meeting of the holders of the shares of the class.

## (d) Transfer of Shares

Subject to the Constitution and to any restrictions attaching to a Shareholder's Shares (including because of the imposition of ASX-imposed escrow), Shares may be transferred by:

- a transfer effected in accordance with the ASX Settlement Operating Rules;
- a written instrument of transfer in any form authorised by the Corporations Act; or
- any other method of transfer permitted by the Corporations Act or ASX Listing Rules.

### (e) Refusing a transfer

Subject to the Corporations Act, the ASX Listing Rules and the ASX Settlement Operating Rules, the Directors may in their absolute discretion ask ASX Settlement to apply a holding lock to prevent a transfer under the ASX Settlement Operating Rules, or refuse to register a paper-based transfer, of a Share where, amongst other things:

- the Company is served with a court order that restricts the relevant Shareholder's capacity to transfer the Shares or the Company has a lien on the Shares the subject of the transfer;
- registration of the transfer may breach an applicable law and ASX has agreed in writing to the application of a holding lock or that the Company may refuse to register a transfer; or

• the Shareholder has agreed in writing to the application of a holding lock or that the Company may refuse to register a paper-based transfer.

## (f) Non-marketable parcels

In accordance with, and as permitted by, the ASX Listing Rules, the Company may sell Shares that constitute less than a "marketable parcel" (as that term is defined in the ASX Listing Rules) by following the relevant sale of small holdings procedures set out in the Constitution.

## (g) Meetings of members

Every Shareholder is entitled to receive notice of, attend and vote at, general meetings of the Company and to receive all notices, accounts and other documents required to be sent to Shareholders under the Constitution, the Corporations Act and the ASX Listing Rules.

## (h) Voting at a general meeting

At a general meeting of the Company, every Shareholder present in person or by proxy, representative or attorney and entitled to vote is entitled to one vote on a show of hands and, on a poll, one vote for each Share held by the Shareholder (with adjusted voting rights for partly paid shares). If the votes on a proposed resolution are equal, the chairperson of the meeting has a casting vote in addition to any deliberative vote.

## (i) Directors - appointment and retirement

Under the Constitution, there must be at least 3 Directors, at least 2 of whom must ordinarily reside in Australia, or such greater number not exceeding 10 as the Directors think fit, in office at all times. Directors are elected, re-elected or removed at general meetings of the Company.

No Director (excluding the Managing Director) may hold office without re-election beyond the third annual general meeting following the meeting at which the Director was last elected or re-elected.

The Board may also appoint any eligible person to be a Director, either to fill a casual vacancy on the Board or as an addition to the existing Directors, who will then hold office until the conclusion of the next annual general meeting of the Company following that eligible person's appointment.

## (j) Directors - voting

Questions arising at a meeting of the Board will be decided by a majority of votes of the Directors present at the meeting and entitled to vote on the matter. If the votes are equal on a proposed resolution, the chairperson of the meeting does not have a second or casting vote in addition to the chairperson's deliberative vote. A written resolution is taken to have passed at a meeting of the Directors if the document containing the resolution is signed by all of the Directors entitled to vote on that resolution.

## (k) Directors - remuneration

Under the Constitution, the Board may decide the remuneration to which each Director is entitled to be paid for his or her services as a Director provided the annual fees payable to Non-Executive Directors do not exceed in aggregate the maximum sum that is from time to time approved by Shareholders in a general meeting in accordance with the ASX Listing Rules.

Remuneration payable by the Company to the Managing Director (which Director's remuneration does not reduce the maximum sum that is available to be paid to Non-Executive Directors) and any other executive Directors may be by way of salary, bonuses, or any other elements but must not include a commission on, or percentage of operating revenue.

Directors are entitled to be paid or reimbursed for all travelling and other expenses properly incurred by them in attending and returning from any meeting of the Directors, any meeting of any committee of the Directors, any general meeting of the Company or otherwise in connection with the business of the Company. If, with the approval of the Directors, any Director performs extra services or makes any special exertions for the benefit of the Company, the Directors may approve the payment to that Director of special and additional remuneration as the Directors think fit, having regard to the value to the Company of the extra services or special exertions.

## (I) Powers and duties of Directors

Subject to the Corporations Act and this Constitution, the Directors are responsible for managing the business of the Company and may exercise all powers of the Company which are not required to be exercised by the Company in a general meeting by the Corporations Act or this Constitution.

### (m) Dividends

Subject to the Corporations Act and to any special rights or restrictions attached to any shares, the Directors may resolve to pay any dividend they think appropriate and to fix the time for payment.

Every dividend must be paid equally on all fully paid Shares and proportionately on all partly paid Shares. The Directors may also resolve that dividends are to be paid out of a particular source or sources.

## (n) Winding up

If the Company is wound up, then subject to the Constitution, the Corporations Act and any rights or restrictions attached to any Share or classes of shares, Shareholders will be entitled to share in any surplus property of the Company in proportion to the number of Shares held by them. If the Company is wound up, the liquidator may, with the sanction of a special resolution, divide among the Shareholders all or part of the Company's property and decide how the division is to be carried out as between Shareholders or different classes of shareholder.

## (0) Indemnity and insurance

The Company may indemnify each "officer" (as that term is defined in section 9 of the Corporations Act) of the Company on a full indemnity basis and to the full extent permitted by law against all losses, liabilities, costs, charges and expenses incurred by that person as an officer of the Company or of a related body corporate of the Company.

The Directors may also and to the full extent permitted by law, authorise the Company to enter into any documentary indemnity in favour of, or insurance policy for the benefit of, a person who is, or has been, an officer of the Company or of a related body corporate of the Company, which indemnity or insurance policy may be on such terms as the Directors approve.

## (p) Restricted Securities

The Company must comply with and enforce any Restriction Deed (as that term is defined in the ASX Listing Rules) and/or the terms of any Restriction Notice (as that term is defined in the ASX Listing Rules) and enforce the Constitution to ensure compliance with the requirements of the ASX Listing Rules or ASX relating to Restricted Securities. During the escrow period applicable to Restricted Securities, the holder of those Restricted Securities must not dispose of, or agree or offer to dispose of, those Restricted Securities, except as permitted by the Listing Rules or ASX.

## 9.2 Interests of Directors

No Director (or entity in which they are a director and/or a shareholder) has, or has had in the two (2) years before the date of this Prospectus, any interests in:

- (a) the formation or promotion of the Company; or
- (b) property acquired or proposed to be acquired by the Company in connection with its formation or promotion of the Offer; or
- (c) the Offer, and

no amounts have been paid or agreed to be paid and no value or other benefit has been given or agreed to be given to:

- (a) any Director to induce him or her to become, or to qualify as, a Director; or
- (b) any Director for services which he or she (or an entity in which they are a partner or director) has provided in connection with the formation or promotion of the Company or the Offer,

in any case, except as disclosed in this Prospectus.

## 9.3 Directors' Holdings

The Directors and their related entities have the following interests in Securities as at the date of this Prospectus:

Director	Shares	Options
Mr Dennis Karp	90,357,035	1,500,000
Dr Nick Lindsay	Nil	1,500,000
Mr Anthony McPaul	Nil	1,500,000

Mr Karp's total relevant interest in the Company's Shares (as at the Prospectus Date) is as a result of his controlling interest in ResCap Investments<sup>44</sup> (which holds 30,583,174 Shares directly and 59,690,106 Shares indirectly via its wholly owned subsidiary ResCap Processing), his controlling interest in Soothgrove (which holds 52,114 Shares) and pursuant to his superannuation fund Pathold No. 53 (which holds 31,641 Shares). Soothgrove is also expected to be issued with a further 92,146 Shares as a result of the Conversion Share Offer<sub>45</sub>.

## 9.4 Remuneration of Directors

The Directors will receive the following remuneration:

	Annual Remuneration A\$
Mr Dennis Karp	\$262,800
Dr Nick Lindsay	\$45,000
Mr Anthony McPaul	\$45,000

## 9.5 Interests of Promoters, Experts and Advisers

Other than as set out below or elsewhere in this Prospectus, no:

- (a) person named in this Prospectus as having performed a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus; or
- (b) promoter of the Company,

holds, or has held at any time during the 2 years before the Prospectus Date, any interest in:

- (a) the formation or promotion of the Company;
- (b) any property acquired or proposed to be acquired by the Company in connection with:

44 Mr Karp is a director of and holds 44.89% of ResCap Investments' shares. Mr Karp's holding of ResCap Investments shares is held via Soothgrove (a company which Mr Karp controls). Furthermore, and as at the Prospectus Date, Soothgrove holds approximately 13,997 Convertible Notes.

45 Mr Karp is also a director of and holds 25% of the shares in Cockatoo Island Iron Ore Project Pty Ltd ACN 159 502 333 (**Cockatoo Island**), an entity which holds 1,036,287 Shares as at the Prospectus Date. Cockatoo is expected to be issued with a further 329,089 Shares pursuant to the Conversion Share Offer.

- (ii) its formation or promotion; or
- (iii) the Offer,

and, other than set out below, no amounts have been paid or agreed to be paid and no value or other benefit has been given or agreed to be given to any person for services provided in connection with:

- (a) the formation or promotion of the Company; or
- (b) the Offer.

The following persons have performed the following services in relation to the Offer and/or the preparation and/or distribution of the Prospectus for the following fees:

- (a) Automic Pty Ltd ACN 152 260 814 (which trades as "Automic Group") is the Company's Share Registry and has been or will be paid approximately \$2,450 (exclusive of GST) for these services<sub>46</sub>;
- (b) Bell Potter Securities Limited ACN 006 390 772 has acted as Broker to the General Public Offer and will be paid a selling fee of 6% (exclusive of GST) of the gross proceeds raised by the Company under the General Public Offer and an option fee of 10,000,000 Options (the terms of which are set out in Section 1.8) in each case on or shortly after completion of the Offer for these services (see also Section 8.11);
- (c) DW Corporate Pty Ltd ACN 094 777 974 (DW Corporate) has acted as the Company's corporate and strategic adviser and has been paid or will be paid approximately \$20,000 (exclusive of GST) for these services<sub>47</sub>;
- (d) Australian Mining & Exploration Title Services Pty Ltd ACN 140 504 098 (AMETS) has prepared the Company's Tenement Report (which is included in Section 6) and has been or will be paid approximately \$13,500 (exclusive of GST) for these services;
- (e) Grant Thornton Corporate Finance Pty Ltd ACN 003 265 987 (Grant Thornton) has acted as the Company's investigating accountant and has prepared the Investigating Accountant's Report (which is included in Section 5) and has been paid or will be paid approximately \$50,000 (exclusive of GST) for these services;
- (f) Mining Associates Pty Ltd ACN 106 771 671 (Mining Associates) has acted as the Company's independent technical expert and has prepared the Independent Technical Report (which is included in Appendix B) and has been paid or will be paid approximately \$35,000 (exclusive of GST) for these services<sub>48</sub>; and
- (g) K&L Gates has acted as the Australian legal adviser to the Company in relation to this Prospectus and the Offer and has been paid or will be paid \$225,000 (exclusive of GST and disbursements) for these services to the Prospectus Date. Further amounts may be paid to K&L Gates in accordance with their usual time-based charge out rates.

46 After the completion of the Offer, it is expected that Automic Group will continue to be the Company's Share Registry and will be paid approximately \$5,000 per annum for these services.

47 After the completion of the Offer, it is expected that DW Corporate will continue to provide the Company with corporate advisory and company secretarial services and will be paid \$25,000 per annum for these services.

48 The Company notes that Mining Associates and Mining Associates Limited (Mining Associates' Hong Kong-based parent entity) hold 2,072,573 Shares and 489,130 Shares, respectively. The Company also issued 815,217 Shares to Vigar Investments Pty Ltd, an affiliate of Mining Associates, for services provided to the Company by Mining Associates.

## 9.6 Future Related Party Transactions

All future related party arrangements (if any) will be determined by the Board, having regard to their duties as Directors, and, where required, all requisite approvals, including but not limited to, shareholder approval will be obtained.

## 9.7 Expenses of Offer

The total expenses of the Offer payable in cash by the Company are expected to be as follows:

Item	Amount (Minimum Subscription)	Amount (Maximum Subscription)
Legal Fees	\$225,000	\$225,000
Investigating Accountant's Fees	\$50,000	\$50,000
Broker's Fee	\$300,000	\$420,000
Independent Technical Report Fee	\$35,000	\$35,000
Other specialist reports	\$120,000	\$120,000
Tenement Report fee	\$13,500	\$13,500
ASX Listing Fee	\$115,000	\$117,000
Miscellaneous costs (including Share Registry Fees)	\$60,000	\$60,000
TOTAL (excluding GST)	\$918,500	\$1,040,500

## 9.8 Effect of the Offer on control and substantial Shareholders

Those Shareholders which have a relevant interest in 5% or more of the Shares on issue as at the date of this Prospectus are as follows:

Name	Number of Shares	Percentage of Shares
ResCap Investments	90,273,280	46.75%
Claymore Capital49	14,723,825	7.63%
Spinite <sub>50</sub>	11,917,297	6.17%
Level 1 Pty Ltd	10,119,496	5.24%

**Note**: ResCap Investments has advised the Company that it is considering a transaction pursuant to which it will, subject to the Corporations Act and ASX Listing Rules, distribute all of the Shares it holds (including those Shares that it holds indirectly via Rescap Processing) to its shareholders<sup>51</sup>. It is not known when the specie distribution will occur if at all.

49 Claymore Capital Pty Ltd ACN 082 722 290.

50 Spinite Pty Ltd ACN 003 361 546.

51 If the in specie distribution of the Shares held by ResCap (and ResCap Processing) were to occur, Soothgrove would receive approximately 40,525,366 Shares (resulting in Soothgrove having a total relevant interest in approximately 40,669,626 Shares). Mr Karp's total relevant interest in Shares would therefore be reduced from approximately 90,449,181 Shares to approximately 40,669,626 (equivalent to between approximately 16.99% and 16.31% of the Company's Shares on Admission). Furthermore, the 52 As noted elsewhere in this Prospectus, Mr Karp is expected to have a total relevant interest in 90,449,181 Shares (equivalent to between approximately 37.79% and 36.27% of the Company's Shares based on a Minimum Subscription and a Maximum Subscription, respectively) on Admission.

Based on the information known as at the date of this Prospectus, on admission, the following persons will have an interest in 5% or more of the Shares on issue:

Name	Shares held	Number to be issued under Conversion Share Offer	Total number of Shares held on Admission	Percentage of Shares held (Minimum Subscription)	Percentage of Shares held (Maximum Subscription)
Rescap Investments <sub>52</sub>	90,273,280	Nil	90,273,280	37.72%	36.20%
Spinite	11,917,297	3,310,638	15,227,935	6.36%	6.11%
Claymore Capital	14,723,825	Nil	14,723,825	6.15%	5.90%

## 9.9 Continuous Disclosure Obligations

Following Admission, the Company will be a "disclosing entity" (as defined in section 111AC of the Corporations Act) and, as such, will be subject to periodic and continuous disclosure obligations. Specifically, like all listed companies, the Company will be required to continuously disclose to the market any information it has which a reasonable person would expect to have a material effect on the price or the value of the Shares (unless a relevant exception to disclosure applies). Price sensitive information will be publicly released through ASX before it is otherwise disclosed to Shareholders and market participants. Distribution of other information to Shareholders and market participants will also be managed through disclosure to ASX. In addition, the Company will post this information on its website after ASX confirms that an announcement has been made, with the aim of making the information readily accessible to the widest audience.

## 9.10 Litigation and Claims

So far as the Directors are aware, there is no current or threatened civil litigation, arbitration, proceedings or administrative appeals, or criminal or governmental prosecutions of a material nature which is/are likely to have a material adverse impact on the Company's business or financial performance, position or prospects.

## 9.11 Consents

Chapter 6D of the Corporations Act imposes a liability regime on the Company (as the offeror of the Shares), the Directors, the persons named in the Prospectus with their consent as proposed Directors, any underwriters, persons named in the Prospectus with their consent as having made a statement in the Prospectus and persons involved in a contravention in relation to the Prospectus, including in relation to misleading and deceptive statements made in the Prospectus, other parties involved in the prospectus can also be responsible for certain statements made in it.

Each of the parties referred to in this Section 9.11:

- (a) does not make, or purport to make, any statement in this Prospectus other than those referred to in this Section 9.11; and
- (b) to the maximum extent permitted by law, expressly disclaim and take no responsibility for any part of this Prospectus other than a reference to its name and any statement included in this Prospectus with the consent of that party as specified in this Section 9.11.

Company's former Director and current holder of approximately 7.61% of ResCap Investments' shares, Mr Justin Boylson, would receive approximately 6,866,390 Shares (equivalent to between approximately 2.87% and 2.75% of the Company's Shares on Admission).

## 9.11 Consents (cont.)

None of the parties referred to in this Section 9.11 authorised or caused the issue of this Prospectus or the making of the Offer.

Automic Group has given its written consent to being named as the share registry to the Company. Automic Group has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

Bell Potter has given its written consent to being named as the Broker to the General Public Offer. Bell Potter has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

DW Corporate has given its written consent to be named as the corporate adviser to the Company. DW Corporate has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

AMETS has given its written consent to being named as the author of the Tenement Report and to the inclusion of the Tenement Report in Section 6 in the form and context in which the report is included. AMETS has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

Grant Thornton has given its written consent to being named as the Company's Investigating Accountant and to the inclusion of the Investigating Accountant's Report in Section 5 in the form and context in which the report is included. Grant Thornton has not withdrawn its consent prior to lodgement of this Prospectus with ASIC.

Mining Associates has given its written consent to being named as the independent technical expert to the Company and to the inclusion of the Independent Technical Report in Appendix B in the form and context in which the report is included. Mining Associates has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

K&L Gates has given its written consent to being named as Australian legal adviser to the Company. K&L Gates has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

Each of the Directors have given their written consent to being named in this Prospectus in the context in which they are named and have not withdrawn their consent prior to lodgement of this Prospectus with ASIC.

## 9.12 Electronic Prospectus

Pursuant to ASIC Regulatory Guide 107, ASIC has exempted compliance with certain provisions of the Corporations Act to allow distribution of an electronic Prospectus on the basis of a paper Prospectus lodged with ASIC and the issue of Shares in response to an electronic application form, subject to compliance with certain provisions. If you have received this Prospectus as an electronic Prospectus please ensure that you have received the entire Prospectus accompanied by the Application Form. If you have not, please email the Company and the Company will send to you, for free, either a hard copy or a further electronic copy of this Prospectus or both.

The Company reserves the right not to accept an Application Form from a person if it has reason to believe that when that person was given access to the electronic Application Form, it was not provided together with the electronic Prospectus and any relevant supplementary or replacement prospectus or any of those documents were incomplete or altered. In such a case, the Application Monies received will be dealt with in accordance with section 722 of the Corporations Act.

## 9.13 Group Structure

The Company's only subsidiary is Mt Boppy Resources Pty Ltd ACN 611 963 216 (**Mt Boppy Resources**). Mt Boppy Resources owns and operates the Mt Boppy Gold Project in western NSW, Australia.

## 9.14 Mt Boppy Resources

Mt Boppy Resources is a wholly owned subsidiary of the Company. Mt Boppy Resources was incorporated in Victoria, Australia on 20 April 2016 to own and operate the Mt Boppy Gold Project.

## 9.15 Free float

The Company confirms that on Admission and based on its assessment of its current and expected Share register, it will have a "free float" (as that term is defined in the ASX Listing Rules) of at least 20%.

## 9.16 Issue Price/exercise price

The Company confirms that all Shares that it will issue under the General Public Offer (and for which it will seek Quotation) and all Options that it will have on issue on Admission have an Issue Price or an exercise price, as applicable, of \$0.20 or greater.

## 9.17 Bookbuild

The Company is not proposing to conduct a bookbuild or similar price discovery process in relation to either component of the Offer (that is, either the General Public Offer or the Conversion Share Offer).

## 9.18 Broker entitlements

The Company confirms that all fees and other benefits payable to the Broker in connection with the Offer (whether arising under the Broker Engagement Letter or otherwise) or the establishment or formation of the Company have been disclosed in full in this Prospectus.

## 9.19 JORC Code 2012

The Company confirms that all references to exploration targets, exploration results or estimates of Mineral Resources or Ore Reserves (as the case may be) included in the Prospectus or in the Independent Technical Report have been prepared and reported on in accordance with the JORC Code.

## 9.20 Competent person's consent

The Company confirms that all exploration targets, exploration results or estimates of Mineral Resources or Ore Reserves (as the case may be) included in the Prospectus are based on, and fairly represent, information and supporting information prepared by the competent persons (none of whom are employees of the Company) referenced in the Independent Technical Report. Furthermore, the Company confirms that the competent persons named in the Independent Technical Report have given their prior written consent as to the form and context in which all references to exploration targets, exploration results or estimates of mineral resources or ore reserves (as the case may be) have been disclosed in this Prospectus.

## 9.21 Potential conflict of interest

The Company notes that Mining Associates and Mining Associates Limited (Mining Associates' Hong Kong-based parent entity) hold 2,072,573 Shares and 489,130 Shares, respectively. The Company does not believe that these relatively modest (as a proportion of the Company's overall issued equity capital) Shareholdings undermine Mining Associates' independence or the integrity of the Independent Technical Report<sub>53</sub>.

53 To safeguard against any perception that Mining Associates' Shareholding might compromise the integrity of the Independent Technical Report, the Company also commissioned SKR Consulting (Australasia) Pty Ltd to complete a review the Independent Technical Report (and specifically in relation to the JORC compliant Resource estimate for the Mt Boppy Project). This review is included at the conclusion of the Independent Technical Report.

## 9.22 Development consents

The Company notes that it is currently in discussions with the Cobar Shire Council in relation to the renewal of development consent 2011/LD-00070 which is applicable to the Mt Boppy Gold Project. The Company is not aware of any reason why the development consent will not ultimately will not be granted on customary terms.

## 9.23 Historical non-compliance

The Company notes that historically there were some non-compliances issues with regulatory consents and licences in relation to the Wonawinta Silver Project and Mt Boppy Gold Project. The Company confirms that all conditions imposed under any regulatory licences or consents have been complied with or are in the process of being met with a timeline agreed between Cobar Shire Council and the Company. The Company has not been subject to any enforcement action to date and is not aware of any enforcement action that is forwarded or proposed to date and understands that the Cobar Shire Council is comfortable with the progress that the Company has made to date in remedying any outstanding matters of non-compliance.

## 9.24 Documents Available for Inspection

Copies of the following documents are available for inspection during normal business hours at the registered office of the Company at Level 4, Grafton Bond Building, 201 Kent Street, Sydney NSW:

- (a) this Prospectus;
- (b) the Constitution; and
- (c) the consents referred to in Section 9.11 of this Prospectus.

## 9.25 Statement of Directors

The Directors report that after due enquiries by them, in their opinion, since the date of the financial statements in the Financial Information in Section 4 there have not been any circumstances that have arisen or that have materially affected or will materially affect the assets and liabilities, financial position, profits or losses or prospects of the Company, other than as disclosed in this Prospectus.

## 9.26 Authorisation

This Prospectus is authorised by the Company and lodged with ASIC pursuant to section 718 of the Corporations Act.

Each of the Directors has consented to the lodgement of this Prospectus with ASIC, in accordance with section 720 of the Corporations Act and has not withdrawn that consent.

This Prospectus is signed for and on behalf of the Company by:

Dated: 22 May 2020

# 10. Glossary of Terms

These definitions are provided to assist persons in understanding some of the expressions used in this Prospectus.

Term	Definition
A\$	Australian dollars
Admission	Admission of the Company to the Official List, following completion of the Offer
Amending Deed	The amending deed dated 16 April 2020 between the Company, TransAsia, T-A Investments, the Security Trustee, Mt Boppy Resources, Mr Dennis Karp and Rescap Investments
Applicant	A person who submits an Application Form
Application	A valid application for Shares under the Offer made pursuant to an Application Form
Application Form(s)	The application forms attached to this Prospectus in relation to the General Public Offer or the Conversion Share Offer, as applicable
Application Monies	Monies received from persons applying for Shares pursuant to the General Public Offer under this Prospectus
ASIC	Australian Securities and Investments Commission
ASX	ASX Limited ACN 008 624 691 or, where the context requires, the financial market operated by ASX
ASX Listing Rules	The listing rules of ASX
ASX Settlement	ASX Settlement Pty Ltd ACN 008 504 532
ASX Settlement Rules	ASX Settlement Operating Rules administered by ASX Settlement
Black Oak	The entity formerly known as Black Oak Minerals Limited ACN 124 374 321
Board	The board of Directors of the Company
CCR	The entity formerly known as Cobar Consolidated Resources Limited
CHESS	Clearing House Electronic Subregister System
Closing Date	The date the Offer closes
"Cobar-style"	Mineral deposits (typically copper/gold) comprising a unique class of large and commonly high grade base and precious metal deposits hosted by marine sediments. They typically have great vertical extent but only a small surface footprint.

Term	Definition
Company or Manuka Resources	Manuka Resources Limited ACN 611 963 225
Constitution	The constitution of the Company from time to time
Corporations Act	Corporations Act 2001 (Cth)
Conversion Share Offer	The offer made under this Prospectus pursuant to which Noteholders may apply for Shares on conversion of their Convertible Notes
Convertible Notes	The 3,231,000 convertible notes issued by the Company pursuant to the convertible deed between Gleneagle Securities and the Company dated August 2016
Directors	The directors of the Company
Electronic Prospectus	The electronic copy of this Prospectus located at https://investor.automic.com.au/#/ipo/manukaresourc es
EPA	The NSW Environment Protection Authority
Exposure Period	In accordance with section 727(3) of the Corporations Act, the period of 7 days (which may be extended by ASIC to up to 14 days) after lodgement of this Prospectus with ASIC during which the Company must not process Applications
General Public Offer	The offer made under this Prospectus pursuant to which eligible Australian investors may apply for Shares at the Issue Price.
General Security Agreement	The general security agreement dated 3 July 2019 between the Company, Mt Boppy Resources and the Security Trustee, as amended by the Amending Deed
g/t	Grams per tonne, equivalent to parts per million
GST	Goods and Services Tax
HIN	Holder Identification Number
Historical Financial Information	Has the meaning given in Section 4
Indicated Mineral Resource	Has the meaning given to that term in the JORC Code
Investigating Accountant	Grant Thornton Corporate Finance Pty Ltd ACN 003 265 987
Investigating Accountant's Report	The report contained in Section 5
Inferred Mineral Resource or Inferred Resource	Has the meaning given in the JORC Code

Term	Definition
Issue Date	The date, as determined by the Directors, on which the Shares offered under this Prospectus will be issued
JORC or JORC Code	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012
kW	Kilowatt
Maximum Subscription	Has the meaning given in Section 1.3
Measured Mineral Resource	Has the meaning given in the JORC Code
Mineral Resource	Has the meaning given in the JORC Code
Minimum Subscription	Has the meaning given in Section 1.2
Moz	Million ounces
Mt	Metric ton
Native Title Act	Native Title Act 1993 (Cth)
Noteholder	A holder of a Convertible Note
Offer Period	The period commencing on the Opening Date and ending on the Closing Date
Official List	The official list of ASX
Official Quotation or Quotation	Official quotation of the Shares on ASX
Opening Date	The date the Offer opens
Option	An option to acquire a Share
Ore Reserve or Reserve	Has the meaning given in the JORC Code
Oz	Troy ounce (= 31.103477 grams)
PIE	The NSW Department of Planning, Industry and Environment
Polymetals	Polymetals (Mt Boppy) Pty Ltd (Receivers and Managers Appointed) ACN 129 225 207
Prospectus	This prospectus dated 22 May 2020
Qualified Investor	An investor who is able to receive an offer of new Shares under the Offer without any lodgement, disclosure document or other formality the jurisdiction in which they reside.
RAB	Rotary air blast

Term	Definition
Real Property Mortgages	The real property mortgages dated 5 July 2019 between the Company, Mt Boppy Resources and the Security Trustee, as amended by the Amending Deed
Relevant Interest	Has the meaning given in the Corporations Act
Restricted Securities	Has the meaning given in the ASX Listing Rules
ROM	Means run of mine
Section	A section of this Prospectus
Security Trust Deed	The security trust deed dated 3 July 2019 between the Company, Mt Boppy Resources, Mr Dennis Karp, Rescap Investments, TransAsia, T-A Investments and the Security Trustee, as amended by the Amending Deed
Security Trustee	AMAL Security Services Pty Ltd ACN 609 790 758
Share Registry	Automic Group
Share	A fully paid ordinary share in the equity capital of the Company
Shareholder	Any person holding Shares
SRN	Security holder Reference Number
T or t	Metric tonne (1 thousand kilograms)
tpa	Tonnes per annum
TSF	Tailings storage facility
VTEM	Versatile time domain electro-magnetic system
Water Mortgage	The water access licence mortgage dated 5 July 2019 between the Company and the Security Trustee, as amended by the Amending Deed

## CORPORATE DIRECTORY

#### Directors

Dennis Karp – Executive Chairman

Nick Lindsay - Non-Executive Director

Anthony McPaul - Non-Executive Director

#### **Key Management**

Haydn Lynch - Chief Operating Officer

David Power - Operations Manager

#### **Joint Company Secretaries**

**Dennis Wilkins** 

Toni Gilholme

#### **Registered Office**

Level 4, Grafton Bond Building 201 Kent Street Sydney NSW 2000

www.manukaresources.com.au

#### **Share Registry**

Automic Group Pty Ltd Level 5, 126 Phillip Street Sydney, NSW 2000

Proposed Stock Exchange Listing ASX Limited (ASX) Proposed ASX Code: MKR

#### Lawyers

K&L Gates Level 31, 1 O'Connell Street Sydney NSW 2000

Auditor

Grant Thornton Audit Pty Ltd Level 17, 383 Kent Street Sydney NSW 2000

Investigating Accountant

Grant Thornton Corporate Finance Pty Ltd Level 17, 383 Kent Street Sydney NSW 2000

#### **Independent Technical Expert**

Mining Associates Pty Ltd Level 13, 445 Upper Edward Street Spring Hill, QLD 4004

#### Broker

Bell Potter Securities Limited Level 38, 88 Phillip Street Sydney, NSW 2000

#### **Corporate Adviser**

DW Corporate Pty Ltd Ground Floor, 20 Kings Park Road West Perth WA 6005 Australia



MANUKA RESOURCES LIMITED | ACN 611 6963 225

# **Application Options:**

## Option A: Apply Online and Pay Electronically (Recommended)

## Apply online at: <a href="https://investor.automic.com.au/#/ipo/manukaresources">https://investor.automic.com.au/#/ipo/manukaresources</a>

- ✓ **Pay electronically:** Applying online allows you to pay electronically, for Australian residents through BPAY®.
- ✓ Get in first, it's fast and simple: Applying online is very easy to do, it eliminates any postal delays and removes the risk of it being potentially lost in transit.
- It's secure and confirmed: Applying online provides you with greater privacy over your instructions and is the only method which provides you with confirmation that your application has been successfully processed.

To apply online, simply scan the barcode to the right with your tablet or mobile device or you can enter the URL above into you browser.

## Option B: Standard Application and Pay by Cheque

Enter your details below (clearly in capital letters using pen), attach cheque and return in accordance with the instructions on page 2 of the form.

1.	Number of Shares applied for       Application payment (multiply box 1 by \$0.20 per Shares)	
2.	Applicant name(s) and postal address (Refer to Naming Standards overleaf)	
	Post Code:	
( Ema By pr	Contact details hone Number Contact Name (PLEASE PRINT) Address – By providing your email you will be kept informed on key updates relating to the Company iding your email address, you elect to receive all communications despatched by the Company electronically (where legally permissible).	]
4. X	CHESS Holders Only – Holder Identification Number (HIN) Note: if the name and address details in section 2 does not match exactly with your registration details held at CHESS, any Shares issued as a result of your Application will be held on the Issuer Sponsored subregister.	
<b>5.</b> App	TFN/ABN/Exemption Code         ant 1         Applicant #2         Applicant #3         Image: Second seco	

#### YOUR PRIVACY

Automic Pty Ltd (ACN 152 260 814) trading as Automic Group advises that Chapter 2C of the Corporation Act 2001 requires information about you as a securityholder (including your name, address and details of the Shares you hold) to be included in the public register of the entity in which you hold Shares. Primarily, your personal information is used in order to provide a service to you. We may also disclose the information that is related to the primary purpose and it is reasonable for you to expect the information to be disclosed. You have a right to access your personal information, subject to certain exceptions allowed by law and we ask that you provide your request for access in writing (for security reasons). Our privacy policy is available on our website – www.automic.com.au

## CORRECT FORMS OF REGISTRABLE TITLE

Type of Investor	Correct Form of Registration	Incorrect Form of Registration
Individual	Mr John Richard Sample	J R Sample
Joint Holdings	Mr John Richard Sample & Mrs Anne Sample	John Richard & Anne Sample
Company	ABC Pty Ltd	ABC P/L or ABC Co
Trusts	Mr John Richard Sample <sample a="" c="" family=""></sample>	John Sample Family Company
Superannuation Funds	Mr John Sample & Mrs Anne Sample <sample a="" c="" family="" super=""></sample>	John & Anne Superannuation Fund
Partnerships	Mr John Sample & Mr Richard Sample <sample &="" a="" c="" son=""></sample>	John Sample & Son
Clubs/Unincorporated Bodies	Mr John Sample <health a="" c="" club=""></health>	Health Club
Deceased Estates	Mr John Sample <estate a="" anne="" c="" late="" sample=""></estate>	Anne Sample (Deceased)

## INSTRUCTIONS FOR COMPLETING THE FORM

#### YOU SHOULD READ THE PROSPECTUS CAREFULLY BEFORE COMPLETING THIS APPLICATION FORM.

This is an Application Form for Fully Paid Ordinary Shares in Manuka Resources Limited (ACN 611 963 225) (the "Company") made under the General Public Offer pursuant to the terms set out in the Prospectus dated 22 May 2020.

Capitalised terms not otherwise defined in this document has the meaning given to them in the Prospectus. The Prospectus contains important information relevant to your decision to invest and you should read the entire Prospectus before applying for Shares. If you are in doubt as to how to deal with this Application Form, please contact your accountant, lawyer, stockbroker or other professional adviser. To meet the requirements of the Corporations Act, this Application Form must not be distributed unless included in, or accompanied by, the Prospectus and any supplementary Prospectus (if applicable). While the Prospectus is current, the Company will send paper copies of the Prospectus, and any supplementary Prospectus (if applicable) and an Application Form, on request and without charge.

- Shares Applied For & Payment Amount Enter the number of Shares you 1. wish to apply for. Your Application must be a minimum of A\$2,000 of Shares and in multiples of \$500 thereafter, there is no maximum application amount. Next, enter the amount of the Application Monies payable. To calculate this amount, multiply the number of Shares applied for by the offer price, which is A\$0.20 per Share.
- Applicant Name(s) and Postal Address ONLY legal entities can hold Shares. 2. The application must be in the name of a natural person(s), companies or other legal entities acceptable by the Company. At least one full given name and surname is required for each natural person. Refer to the table above for the correct forms of registrable title(s). Applicants using the wrong form of names may be rejected. Next, enter your postal address for the registration of your holding and all correspondence. Only one address can be recorded against a holding.
- Contact Details Please provide your contact details for us to contact you 3 between 9:00am and 5:00pm (Sydney time) should we need to speak to you about your application. In providing your email address you elect to receive electronic communications. You can change your communication preferences at any time by logging in to the Investor Portal accessible at https://investor.automic.com.au/ -/home

## DECLARATIONS

#### BY SUBMITTING THIS APPLICATION FORM WITH THE APPLICATION MONIES, I/WE DECLARE THAT I/WE:

- Have received a copy of the Prospectus, either in printed or electronic form and have read the Prospectus in full;
- Have completed this Application Form in accordance with the instructions on the form and in the Prospectus;
- Declare that the Application Form and all details and statements made by me/us are complete and accurate;
- I/we agree to provide further information or personal details, including information related to tax-related requirements, and acknowledge that processing of my application may be delayed, or my application may be rejected if such required information has not been provided;
- Agree and consent to the Company collecting, holding, using and disclosing my/our personal information in accordance with the Prospectus
- Where I/we have been provided information about another individual, warrant that I/we have obtained that individual's consent to the transfer of their information to the Company;

- CHESS Holders If you are sponsored by a stockbroker or other participant and you wish to hold Shares allotted to you under this Application on the CHESS subregister, enter your CHESS HIN. Otherwise leave the section blank and on allotment you will be sponsored by the Company and a "Securityholder Reference Number" ('SRN') will be allocated to you.
- TFN/ABN/Exemption If you wish to have your Tax File Number, ABN or Exemption registered against your holding, please enter the details. Collection of TFN's is authorised by taxation laws but quotation is not compulsory and it will not affect your Application.
- Payment Payments for applications made through this application form can only 6. be made by cheque. Payment can be made by both BPAY and EFT but only by making an online application, which can be accessed by following the web address provided on the front of the application form. Do not forward cash with this Application Form as it will not be accepted.

Your cheque must be made payable to "Manuka Resources Limited" and drawn on an Australian bank and expressed in Australian currency and crossed "Not Negotiable". Cheques or bank drafts drawn on overseas banks in Australian or any foreign currency will NOT be accepted. Any such cheques will be returned and the acceptance deemed to be invalid. Sufficient cleared funds should be held in your account as your acceptance may be rejected if your cheque is dishonoured.

- Acknowledge that once the Company accepts my/our Application Form, I/we may not withdraw it;
- Apply for the number of Shares that I/we apply for (or a lower number allocated in a manner allowed under the Prospectus)
- Acknowledge that my/our Application may be rejected by the Company in its absolute discretion:
- Authorise the Company and their agents to do anything on my/our behalf necessary (including the completion and execution of documents) to enable the Shares to be allocated;
- Am/are over 18 years of ages;
- Agree to be bound by the constitution of the Company;
- Acknowledge that neither the Company nor any person or entity guarantees any particular rate of return of the Shares, nor do they guarantee the repayment of capital:

## LODGEMENT INSTRUCTIONS

The General Public Offer is expected to open on Tuesday, 9 June 2020 and is expected to close at 5pm (Sydney time) on Tuesday, 23 June 2020. The Directors reserve the right to close the offer at any time once sufficient funds are received. Applicants are therefore encouraged to submit their Applications as early as possible. Completed Application Forms and cheques must be submitted:



## **By Post:**

Manuka Resources Limited C/- Automic Pty Ltd GPO Box 5193 SYDNEY NSW 2001



**By Hand Delivery:** Manuka Resources Limited C/- Automic Pty Ltd Level 2, 267 St Georges Terrace PERTH WA 6000

Your Application Form must be received by no later than: 23 June 2020 (unless extended or closed earlier)

## ASSISTANCE

Need help with your application, no problem. Please contact Automic on:



PHONE: 1300 288 664 within Australia +61 (2) 9698 5414 from outside Australia



Go to www.automicgroup.com.au 173



EMAIL:



MANUKA RESOURCES LIMITED | ACN 611 6963 225

## **Application**

Enter your details below (clearly in capital letters using pen) and return in accordance with the instructions on page 2 of the form.

1.	Nur	nber	of	Conv	verti	ble	Note	es b	eing	con	verted into new Shares at \$0.1519 per Share

2. Estimate number of new Shares being applied for under the Conversion Share Offer

Please note that if you wish to apply for new Shares under the Conversion Share Offer, you must apply to convert all of your Convertible Notes into New Shares (i.e you cannot apply to convert only some of your Convertible Notes).

3.	3. Applicant name(s) and postal address (Refer to Naming Standards overleaf)																					
																 						-
																	Pos	st Co	de:			1
																						J

4. Contact details											
Telephone Number	Contact	: Name (PLEASE PRINT)									
( )											
Email Address – By providing your email you will be kept informed on key updates relating to the Company											
By providing your email address, you elect to receive all commu	nications despatched by the Company e	electronically (where legally permissible).									
			-4								
5. CHESS Holders Only – Holder Identificati		e: if the name and address details in section 2 does not match exactly									
		your registration details held at CHESS, any Shares issued as a result	ć								
	of y	our Application will be held on the Issuer Sponsored subregister.	_								
			<u> </u>								
			- 3								
6 TEN (ADN/Examplion Code			12								
O. TFN/ABN/Exemption Code Applicant 1	Applicant #2	Applicant #3	0								
			G								
			T								

YOUR PRIVACY

Automic Pty Ltd (ACN 152 260 814) trading as Automic Group advises that Chapter 2C of the Corporation Act 2001 requires information about you as a securityholder (including your name, address and details of the Shares you hold) to be included in the public register of the entity in which you hold Shares. Finarily, your personal information is used in order to provide a service to you. We may also disclose the information that is related to the primary purpose and it is reasonable for you to expect the information to be disclosed. You have a right to access your personal information, subject to certain exceptions allowed by law and we ask that you provide your request for access in writing (for security reasons). Our privacy policy is available on our website - www.automic.com.au

If NOT an individual TFN/ABN, please note the type in the box

C = Company; P = Partnership; T = Trust; S = Super Fund

## CORRECT FORMS OF REGISTRABLE TITLE

Type of Investor	<b>Correct Form of Registration</b>	Incorrect Form of Registration
Individual	Mr John Richard Sample	J R Sample
Joint Holdings	Mr John Richard Sample & Mrs Anne Sample	John Richard & Anne Sample
Company	ABC Pty Ltd	ABC P/L or ABC Co
Trusts	Mr John Richard Sample <sample a="" c="" family=""></sample>	John Sample Family Company
Superannuation Funds	Mr John Sample & Mrs Anne Sample <sample a="" c="" family="" super=""></sample>	John & Anne Superannuation Fund
Partnerships	Mr John Sample & Mr Richard Sample <sample &="" a="" c="" son=""></sample>	John Sample & Son
Clubs/Unincorporated Bodies	Mr John Sample <health a="" c="" club=""></health>	Health Club
Deceased Estates	Mr John Sample <estate a="" anne="" c="" late="" sample=""></estate>	Anne Sample (Deceased)

## INSTRUCTIONS FOR COMPLETING THE FORM

#### YOU SHOULD READ THE PROSPECTUS CAREFULLY BEFORE COMPLETING THIS APPLICATION FORM.

This is an Application Form for Fully Paid Ordinary Shares in Manuka Resources Limited (ACN 611 963 225) (the "Company") made under the Conversion Share Offer pursuant to the terms set out in the Prospectus dated 22 May 2020.

Capitalised terms not otherwise defined in this document has the meaning given to them in the Prospectus. The Prospectus contains important information relevant to your decision to invest and you should read the entire Prospectus before applying for Shares. If you are in doubt as to how to deal with this Application Form, please contact your accountant, lawyer, stockbroker or other professional adviser. To meet the requirements of the Corporations Act, this Application Form must not be distributed unless included in, or accompanied by, the Prospectus and any supplementary Prospectus (if applicable). While the Prospectus is current, the Company will send paper copies of the Prospectus, and any supplementary Prospectus (if applicable) and an Application Form, on request and without charge.

- Convertible Notes being converted Enter the number of Convertible Notes 1. you are converting into new Shares under the Conversion Share Offer.
- Shares Applied Enter the estimated number of Shares being applied for under the Conversion Share Offer. Any resulting fraction of new Shares will be rounded down to the nearest whole Share by the Company.
- Applicant Name(s) and Postal Address ONLY legal entities can hold Shares. 3. The application must be in the name of a natural person(s), companies or other legal entities acceptable by the Company. At least one full given name and surname is required for each natural person. Refer to the table above for the correct forms of registrable title(s). Applicants using the wrong form of names may be rejected. Next, enter your postal address for the registration of your holding and all correspondence. Only one address can be recorded against a holding.
- Contact Details Please provide your contact details for us to contact you 4. between 9:00am and 5:00pm (Sydney time) should we need to speak to you about your application. In providing your email address you elect to receive electronic communications. You can change your communication preferences at any time by logging in to the Investor Portal accessible at https://investor.automic.com.au/ /home
- CHESS Holders If you are sponsored by a stockbroker or other participant and 5. you wish to hold Shares allotted to you under this Application on the CHESS subregister, enter your CHESS HIN. Otherwise leave the section blank and on allotment you will be sponsored by the Company and a "Securityholder Reference Number" ('SRN') will be allocated to you.
- TFN/ABN/Exemption If you wish to have your Tax File Number, ABN or Exemption registered against your holding, please enter the details. Collection of TFN's is authorised by taxation laws but quotation is not compulsory and it will not affect your Application.

This Application Form does not need to be signed. By lodging this Application Form the Applicant hereby:

- applies for the number of Shares specified in this Application Form or such lesser number as may be allocated by the Company's Directors and that all Shares applied for 1. are issuable subject to Shareholder approval;
- 2. agrees to be bound by the Constitution of the Company;
- declares that all details and statements in this Application Form are complete and accurate; 3.
- authorises the Company's Directors to complete or amend this Application Form and any other documentation where necessary to correct any errors or omissions; 4.
- acknowledges that he/she received personally the Prospectus with the Application Form; 5.
- acknowledges that neither the Company nor any person or entity guarantees any particular rate of return on the Shares, nor do they guarantee the repayment of capital; 6.
- acknowledges that on conversion of their Convertible notes, the interest repayment and conversion obligations attaching to those Convertible Notes will be extinguished. 7.

If an Application Form is not completed correctly, it may still be accepted. Any decision of the Company's Directors as to whether to accept an Application Form, and how to construe, amend or complete it, shall be final.

Applicants applying for new Shares under the Conversion Share Offer must do so using a paper copy of this Application Form.

## LODGEMENT INSTRUCTIONS

The Conversion Share Offer Is expected to open on Tuesday, 9 June 2020 and is expected to close at 5pm (Sydney Time) on Tuesday, 23 June 2020. Completed Application Forms must be submitted:



and

Manuka Resources Limited C/- Automic Pty Ltd GPO Box 5193 SYDNEY NSW 2001



By Hand Delivery: Manuka Resources Limited C/- Automic Pty Ltd Level 5, 126 Phillip Street SYDNEY NSW 2000

Your Application Form must be received by no later than: 23 June 2020 (unless extended or closed earlier)

## ASSISTANCE

Need help with your application, no problem. Please contact Automic on:



PHONE: 1300 288 664 within Australia +61 (2) 9698 5414 from outside Australia



LIVE WEBCHAT: Go to www.automicgroup.com.au



**FMATI:** corporate.actions@automic.com.au

## **Appendix A - Significant accounting policies**

The following is a summary of the significant accounting policies used in the preparation of the Historical Financial Information set out in this Prospectus.

## (a) Basis of consolidation

The Group's financial statements consolidate those of the Parent Company and all of its subsidiaries at the end of the reporting period. The parent controls a subsidiary if it is exposed, or has rights, to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary. All subsidiaries have a reporting date of 30 June.

All transactions and balances between Group companies are eliminated on consolidation, including unrealised gains and losses on transactions between Group companies. Where unrealised losses on intra-group asset sales are reversed on consolidation, the underlying asset is also tested for impairment from a group perspective. Amounts reported in the financial statements of subsidiaries have been adjusted where necessary to ensure consistency with the accounting policies adopted by the Group.

Profit or loss and other comprehensive income of subsidiaries acquired or disposed of during the year are recognised from the effective date of acquisition, or up to the effective date of disposal, as applicable.

## (b) Income tax

Tax expense recognised in profit or loss comprises the sum of deferred tax and current tax not recognised in other comprehensive income or directly in equity.

Current income tax assets and/or liabilities comprise those obligations to, or claims from, the Australian Taxation Office (ATO) and other fiscal authorities relating to the current or prior reporting periods that are unpaid at the reporting date. Current tax is payable on taxable profit, which differs from profit or loss in the financial statements. Calculation of current tax is based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

Deferred income taxes are calculated using the liability method on temporary differences between the carrying amounts of assets and liabilities and their tax bases. However, deferred tax is not provided on the initial recognition of goodwill or on the initial recognition of an asset or liability unless the related transaction is a business combination or affects tax or accounting profit. Deferred tax on temporary differences associated with investments in subsidiaries and joint ventures is not provided if reversal of these temporary differences can be controlled by the Company and it is probable that reversal will not occur in the foreseeable future.

Deferred tax assets and liabilities are calculated, without discounting, at tax rates that are expected to apply to their respective period of realisation, provided they are enacted or substantively enacted by the end of the reporting period.

Deferred tax assets are recognised to the extent that it is probable that they will be able to be utilised against future taxable income. Deferred tax liabilities are always provided for in full.

Deferred tax assets and liabilities are offset only when the Company has a right and intention to set off current tax assets and liabilities from the same taxation authority.

Changes in deferred tax assets or liabilities are recognised as a component of tax income or expense in profit or loss, except where they relate to items that are recognised in other comprehensive income (such as the revaluation of land) or directly in equity, in which case the related deferred tax is also recognised in other comprehensive income or equity, respectively.

#### (c) Operating expenses

Operating expenses are recognised in profit or loss upon utilisation of the service or at the date of their origin.

#### (d) Exploration and evaluation expenditure

Exploration and evaluation expenditure incurred is accumulated in respect of each identifiable area

of interest. These costs are only carried forward to the extent that they are expected to be recouped through the successful development of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Accumulated costs in relation to an abandoned area are written off in full against profit or loss in the year in which the decision to abandon the area is made.

When production commences, the accumulated costs for the relevant area of interest are transferred to mine properties and amortised over the life of the area according to the rate of depletion of the economically recoverable reserves.

Costs of site restoration are provided over the life of the facility from when exploration commences and are included in the costs of that stage. Site restoration costs include the dismantling and removal of mining plant, equipment and building structures, waste removal, and rehabilitation of the site in accordance with clauses of the mining permits. Such costs have been determined using estimates of future costs, current legal requirements and technology on a discounted basis. Any changes in the estimates for the costs are accounted on a prospective basis.

Any changes in the estimates for the costs are accounted on a prospective basis. In determining the costs of site restoration, there is uncertainty regarding the nature and extent of the restoration due to community expectations and future legislation. Accordingly the costs have been determined on the basis that the restoration will be completed within one (1) year of abandoning the site. A regular review for impairment is undertaken of each area of interest to determine the appropriateness of continuing to carry forward costs in relation to that area of interest in, or in relation to, the interest are continuing. Exploration expenditure which fails to meet at least one (1) of the conditions outlined above is written off.

#### (e) Property, plant and equipment

Property, plant, equipment, is stated at cost less accumulated depreciation and any impairment in value.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial year in which they are incurred.

Depreciation is calculated on a straight-line basis over the estimated useful life of the asset. Buildings are depreciated over 10 years, leasehold improvement over 5 years and plant and equipment is depreciated over 2 to 10 years depending on the nature of the asset. Land is not depreciated. Useful lives are examined on an annual basis and adjustments, where applicable, are made on a revised useful life basis.

The carrying values of plant and equipment are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

## (f) Financial instruments

## Recognition and derecognition

Financial assets and financial liabilities are recognised when the Group becomes a party to the contractual provisions of the financial instrument and are measured initially at fair value adjusted by transactions costs, except for those carried at fair value through profit or loss, which are measured initially at fair value. Subsequent measurement of financial assets and financial liabilities are described below.

Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred. A financial liability is derecognised when it is extinguished, discharged, cancelled or expires.

Except for those trade receivables that do not contain a significant financing component and are measured at the transaction price in accordance with AASB 15, all financial assets are initially measured at fair value adjusted for transaction costs (where applicable).

#### Subsequent measurement of financial assets

For the purpose of subsequent measurement, financial assets, other than those designated and effective as hedging instruments, are classified into the following categories upon initial recognition:

- Financial assets at amortised cost
- Financial assets at fair value through profit or loss (FVPL)
- Debt instruments at fair value through other comprehensive income (FVOCI)
- Equity instruments at fair value through comprehensive income (FVOCI)

Classifications are determined by both:

- The entity's business model for managing the asset
- The contractual cash flow characteristics of the financial assets

All income and expenses relating to financial assets that are recognised in profit or loss are presented within finance costs, finance income or other financial items, except for impairment of trade receivables which is presented within other expenses.

## Financial assets at amortised cost

Financial assets are measured at amortised cost if the assets meet the following conditions (and are not designated as FVPL):

- They are held within a business model whose objective is to hold the financial assets and collect its contractual cash flows
- The contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

After initial recognition, these are measured at amortised cost using the effective interest method. Discounting is omitted where the effect of discounting is immaterial. The Group's cash and cash equivalents, trade and most other receivables fall into this category of financial instruments.

## Financial assets at fair value through profit or loss (FVPL)

Financial assets that are held within a business model other than 'hold to collect' or 'hold to collect and sell' are categorised at fair value through profit and loss. Further, irrespective of business model, financial assets whose contractual cash flows are not solely payments of principal and interest are accounted for at FVPL. All derivative financial instruments fall into this category.

#### Impairment of financial assets

AASB 9's new impairment model use more forward looking information to recognize expected credit losses - the 'expected credit losses (ECL) model'. The application of the new impairment model depend on whether there has been a significant increase in credit risk.

The Group considers a broader range of information when assessing credit risk and measuring expected credit losses, including past events, current conditions, reasonable and supportable forecasts that affect the expected collectability of the future cash flows of the instrument.

In applying this forward-looking approach, a distinction is made between:

- Financial instruments that have not deteriorated significantly in credit quality since initial recognition or that have low credit risk (Stage 1); and
- Financial instruments that have deteriorated significantly in credit quality since initial recognition and whose credit risk is not low (Stage 2).

'Stage 3' would cover financial assets that have objective evidence of impairment at the reporting date. '12-month expected credit losses' are recognised for the first category while 'lifetime expected credit losses' are recognised for the second category. Measurement of the expected credit losses is determined by a probability-weighted estimate of credit losses over the expected life of the financial instrument.

## Trade and other receivables and contract assets

The Group makes use of a simplified approach in accounting for trade and other receivables as well as contract assets and records the loss allowance at the amount equal to the expected lifetime credit losses. In using this practical expedient, the Group uses its historical experience, external indicators and forward-looking information to calculate the expected credit losses using a provision matrix.

The Group assess impairment of trade receivables on a collective basis as they possess credit risk characteristics based on the days past due.

All financial assets, except for those at fair value through profit or loss (FVPL) and equity investments at fair value through other comprehensive income (equity FVOCI), are subject to review for impairment at least at each reporting date to identify whether there is any objective evidence that a financial asset or a group of financial assets is impaired.

Classification and measurement of financial liabilities

As the accounting for financial liabilities remains largely unchanged from AASB 139, the Group's financial liabilities were not impacted by the adoption of AASB 9. However, for completeness, the accounting policy is disclosed below.

The Group's financial liabilities include trade and other payables.

Financial liabilities are initially measured at fair value, and, where applicable, adjusted for transaction costs unless the Group designated a financial liability at fair value through profit or loss. Subsequently, financial liabilities are measured at amortised cost using the effective interest method except for derivatives and financial liabilities designated at FVPL, which are carried subsequently at fair value with gains or losses recognised in profit or loss (other than derivative financial instruments that are designated and effective as hedging instruments).

#### (g) Share based payments

Options over ordinary shares have been granted to employees, Directors and finance providers from time to time, on a discretionary basis. The cost of these share-based payments is measured by reference to the fair value at the date at which they are granted using an option pricing model. The options may be subject to service or other vesting conditions and their fair value is recognised as an expense together with a corresponding increase in other reserve equity over the vesting period.

#### (h) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost includes all expenses directly attributable to the manufacturing process as well as suitable portions of related production overheads, based on normal operating capacity. Costs of ordinarily interchangeable items are assigned using the first in, first out cost formula. Net realisable value is the estimated selling price in the ordinary course of business less any applicable selling expenses.

#### (i) Mine development

Once the technical feasibility and commercial viability of the extraction of mineral resources in a particular area of interest become demonstrable all development costs subsequently incurred within that area of interest are capitalised and carried at cost.

Amortisation of capitalised mine development costs is provided on the unit-of-production method resulting in an amortisation charge proportional to the depletion of the economically recoverable mineral resources. Costs are amortised from the commencement of production

#### (j) Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents includes cash on hand and at bank, deposits held at call with financial institutions, other short term, highly liquid investments with maturities of three (3) months or less, that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value and bank overdrafts.

#### (k) Equity, reserves and dividend payments

Share capital represents the fair value of shares that have been issued. Any transaction costs associated with the issuing of shares are deducted from share capital, net of any related income tax benefits.

Retained earnings include all current and prior period retained profits.

Dividend distributions payable to equity shareholders are included in other liabilities when the dividends have been approved in a General Meeting prior to the reporting date.

All transactions with owners of the parent are recorded separately within equity.

#### (I) Goods and services tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Tax Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST components of investing and financing activities, which are disclosed as operating cash flows.

#### (m) Rehabilitation

Provisions made for rehabilitation are recognised where there is a present obligation as a result of exploration, development or production activities having been undertaken, and it is probable that an outflow of economic benefits will be required to settle the obligation. The estimated future obligations include the costs of removing facilities, abandoning mining activities and restoring the affected areas. The provision for future rehabilitation costs is the best estimate of the present value of the expenditure required to settle the obligation at the reporting date, based on current legal requirements and technology. Future rehabilitation costs are reviewed annually and any changes are reflected in the present value of the rehabilitation costs relating to exploration and development activities is capitalised as a cost of those activities. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money, and where appropriate the risks specific to the liability.

# (n) Significant management judgement in applying accounting policies and estimation uncertainty

When preparing the financial statements, management undertakes a number of judgements, estimates and assumptions about the recognition and measurement of assets, liabilities, income and expenses.

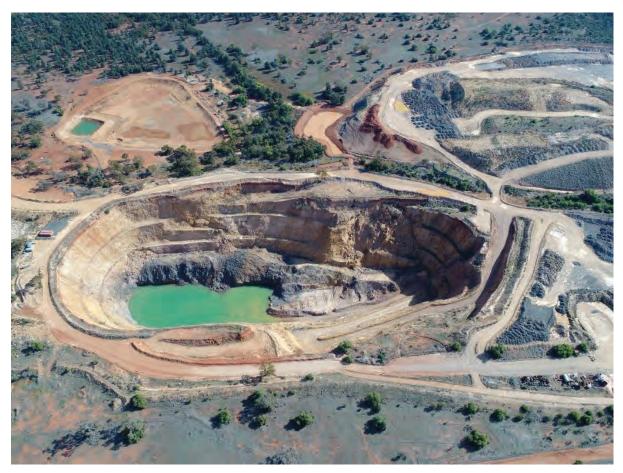
#### Rehabilitation provision

The Company is required by the relevant regulatory authorities to ensure that appropriate rehabilitation is carried out on tenements that are mined. The amount of the rehabilitation cost is an estimate based upon the estimated life of each mined tenement, as well as the future timing and cost of such rehabilitation. The provision is constantly revised as information about the life of mine, depth of mining and cost estimates are updated.

#### Share based payment reserve

Management uses valuation techniques to determine the fair value of the reserve created when options are issued to employees and executives. This involves developing estimates and assumptions determined by reference to historical data of comparable entities over a period of time. Management bases its assumptions on observable data as far as possible but this is not always available. In that case management uses the best information available.

# TECHNICAL REPORT ON THE MT BOPPY GOLD AND WONAWINTA SILVER-LEAD-ZINC PROJECTS, NSW, AUSTRALIA



\*Mt Boppy Mine June 2017

Prepared by Mining Associates Pty Ltd

For

#### Manuka Resources Limited

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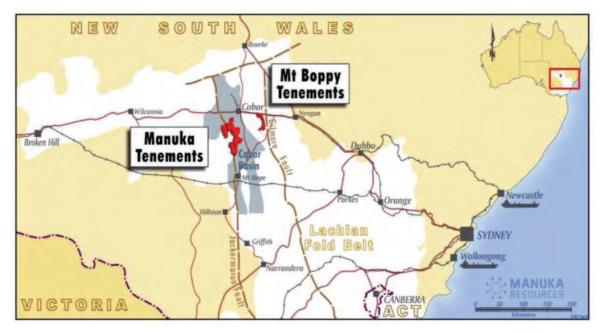
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# 1 SUMMARY

This report is a technical review of the Manuka Property (Wonawinta silver-lead-zinc mine) and the Mt Boppy Property (Mt Boppy Gold Mine) in central New South Wales, Australia. Titles to the Properties are held 100% by Manuka Resources Ltd ("Manuka" or "MRL") and comprise one Mining Lease (ML) and seven Exploration Licences (EL) at the Manuka Property and seven Mining titles (ML and GL) and one Exploration Licence (EL) at the Mt Boppy Property which is held by Mt Boppy Resources Pty Ltd a wholly owned subsidiary of Manuka Resources.

Both Properties are in the Cobar Basin located in central-west New South Wales about 700 km northwest of Sydney. Manuka Resources Limited acquired the Manuka Property in August 2016 and the Mt Boppy Property in June 2019. Activities carried out by Manuka Resources Limited to date have entailed:

- Updating Mine Operations Plans and obtaining relevant consents, authorisations and licences for the Mt Boppy Gold Mine and Wonawinta site.
- Refurbishment of the Wonawinta plant and Mt Boppy Gold Mine and Implementation Planning to enable restart of gold mining at Mt Boppy and gold processing at Wonawinta.
- Technical activities to enable Resource Estimation at Mt Boppy gold deposit and Wonawinta, a Reserves Statement for Mt Boppy Gold Mine and preparation of an exploration strategy and work programs.
- Commissioning of the Wonawinta plant on Mt Boppy gold ore with gold in circuit being adsorbed onto carbon prior to stripping and smelting into dore.



Mining Associates ("MA") was commissioned by Manuka Resources Limited ('Manuka") to provide a Technical Report ("ITR") and Mineral Resource Estimates for the Mt Boppy gold deposit the Wonawinta silver-lead-zinc deposit in NSW Australia in accordance with the Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012. It is understood that the ITR is required for inclusion in a prospectus to support the listing of Manuka on the Australian Securities Exchange ("ASX").

# 1.1 HISTORY

Both Properties have a long history of exploration, discovery and disrupted periods of operation with multiple owners. Mining and processing at Mt Boppy produced over 450,000 recovered ounces of gold since the early 1900's. Further mining took place at Mt Boppy in 2015 with treatment of ore at the Wonawinta plant. Mining and processing at Wonawinta produced 2.8 million ounces of silver between 2012 and 2015. Both sites have been on care and maintenance since December 2015.

# 1.2 GEOLOGY AND MINERALISATION

The Manuka and Mt Boppy Properties are located in the highly-prospective Cobar Superbasin. The Cobar Superbasin is a north-south trending belt of mid-Paleozoic age (460-440 Ma old) sedimentary and volcanic rocks deposited in a series of asymmetric deep-water troughs up to 9 km deep surrounded by shallow water shelves.

Mount Boppy is located on the eastern side of the Cobar Superbasin within the northern tip of one trough known as the Canbelego-Mineral Hill Rift Zone. The Mt Boppy gold deposit is a gold-rich member of the high-grade Cobar-style polymetallic (Au-Ag-Pb-Zn-Cu) deposits.

The carbonate hosted Wonawinta silver-lead-zinc deposit lies on the western margin of the Cobar Superbasin. Mineralisation occurs along some 6 km of lateral extent and has been interpreted as an oxidised (supergene-enriched) Mississippi-Valley Type (MVT) deposit. The regional geological setting, host rocks and geometry of mineralisation largely fit this model, although the high silver grades with associated gangue minerals observed at Manuka may be more typical of Irish Style deposits.

# 1.3 **RESOURCES**

JORC categorised Mineral Resources for the Mt Boppy gold project have been classified as measured, indicated and inferred confidence categories on a spatial, areal and zone basis. The total resource is estimated as 444,000 tonnes at 3.13 g/t Au providing 44,720 ounces.

Resource Category	Material	Tonnes	Grade g/t Au	Contained gold Troy ounces
Measured	in-situ	48,900	3.24	5,090
Indicated	in-situ	195,500	2.99	18,790
	stopes	115,300	3.60	13,350
Inferred	in-situ	24,000	3.33	2,570
Total		383,700	3.23	39,800
Stockpiles (measured)		60,300	2.54	4,920

Resource categories of the Mt Boppy gold deposit (> 1 g/t	Au)
incoorde caregories of the int poppy gold acposit (* 1 g/t	Au)

Gold mineralisation at the Mt Boppy Gold Mine is known to extend to at least 200 m below surface and is open at depth. Significant exploration upside remains as Cobar-style polymetallic deposits can develop over vertical extents of up to 1000 m and additional deposits can also occur laterally.

The JORC categorised Mineral Resources estimate for Wonawinta has been classified as Measured, Indicated and Inferred confidence categories. The total resource reported, above a 20 g/t Ag cut off is 38.8 million tonnes at 42.0 g/t Ag and 0.61 % Pb providing 52.4 million ounces of silver and 236.5 thousand tonnes of lead. Stockpiled material is estimated to total 515,700 tonnes grading 70.0 g/t Ag for 1.16 million ounces of silver. Lead grades in stockpiles are not able to be estimated with confidence.

Most resource definition drill holes (over 95%) are shallow (less than 50 m depth), vertical reverse circulation holes. Many holes were terminated at the base of weathering, still within mineralisation. This mineralisation open at depth represents a large potential resource and reserve upside at Wonawinta. An Exploration Target (outside the Wonawinta resource areas) of between 9.1 Mt @ 46 g/t Ag and 0.6% Pb and 19.9 Mt @ 36 g/t Ag and 0.5 g/t Pb, provides further potential for 13.7 to

23.3 Moz of silver and between 53.5 kt and 96.9 kt of lead. These are a logical priority drill target within the current Mine leases.

Resource Category	Material (Mt)	Ag (g/t)	Pb (%)	Ag Moz	Pb kt
Measured	0.9	45.0	0.70	1.3	6.2
Indicated	8.5	48.5	0.79	13.2	67.5
Inferred	29.4	40.0	0.55	37.9	162.9
Total	38.8	42.0	0.61	52.4	236.6
Stockpiles (Indicated)	0.52	70.0	-	1.16	-

Resource categories of the Wonawinta silver deposit (> 20g/t Ag)

#### 1.4 RESERVES

A Probable Ore Reserve estimate has been developed for extension of the existing Mt Boppy Gold Mine.

Ore Type	'000 Tonnes	g/t Au		
Oxide	10	3.1		
Transitional	130	2.9		
Fresh	20	3.3		
Stope tailings fill	100	3.3		
Existing Stockpiles	60	2.5		
Total Probable Ore Reserves	320	3.0		

#### Mt Boppy Probable Ore Reserves

#### **1.5 INFRASTRUCTURE**

Both projects have good access, significant on-site infrastructure (maintained camps, offices) and granted compliant Mining leases. The Wonawinta processing plant flowsheet has an 1800 kW primary ball mill (4m diameter x 6.7 IS), 400 kW secondary ball mill (2.8m diameter x 3.96 IS), six leach tanks (poured plinths for two more) a carbon-based elution circuit with Merrill type zinc precipitation, filter press (for silver) and a new Gekko elution circuit (in construction at report date) for gold dore production. The plant has recently been refurbished at a cost of some \$5 million and the tailings storage facility is 60% through a 2 m lift.

#### 1.6 **OPERATIONS**

Manuka have undertaken detailed in-house Implementation Planning and commenced processing Mt Boppy gold ore at the Wonawinta plant in April 2020. Permits and Licences to commence operations at both sites have been secured. A full operational workforce has been recruited and principal contractors have been engaged and deployed. Mining Associates have undertaken review of the Implementation Plan.

#### 1.7 EXPLORATION

Concurrent to operations, Manuka intends to undertake Exploration on over 1,100 km<sup>2</sup> of tenements in the Cobar Basin. The exploration strategy comprises a combination of brownfields evaluation (on granted mining titles and nearby exploration licences) and greenfields exploration on exploration licences. The main targets are:

## Wonawinta-style silver-lead-zinc mineralisation.

- Brownfields: Infill drilling of known resources and Exploration Target on granted Mining leases will be undertaken with the intention to upgrade resource categories and identify extensions for both oxide and primary sulphide silver lead and zinc.
- Greenfields: Evaluation on Exploration Licences will proceed with follow-up of multiple identified targets with favourable geophysical, soil geochemistry and geological features. Many of these have not been drilled and may represent near-surface mineralisation.

# Cobar-style polymetallic (gold-silver-lead-zinc-copper) mineralisation.

Expand program to assessment on Exploration licence of several untested Greenfields prospects targets on the Mt Boppy and Manuka Properties.

- Brownfields: Commence with evaluation of the Mt Boppy-Canbelego Gold Camp with an initial focus on targets on granted Mining titles. Drilling on granted Mining leases and adjacent Exploration leases will be undertaken with the intention to identify new gold mineralisation. The intention is to consider the Gold Camp as a whole and assess the potential for depth and lateral extensions to the Mt Boppy gold deposit.
- Greenfields: Evaluation on Exploration Licences at the Manuka and Mt Boppy Properties will
  proceed with follow-up of multiple identified targets with favourable geophysical, soil
  geochemistry and geological expressions. Some of these have not been drilled and may
  represent near-surface mineralisation of gold, silver, lead, zinc, copper. Other targets have
  received historical drilling and its effectiveness will be evaluated.

# **1.8 RECOMMENDATIONS**

The exploration strategy is well balanced and comprises Brownfields targets on granted Mining titles and Greenfields and Brownfields targets on Exploration Licences. MA considers priority should be given to:

# 1.8.1 Mt Boppy

Cobar-style polymetallic deposits are strongly structurally controlled and usually with small but detectable surface footprints. Deposits have significant depth extents (up to 1000 m) and in some cases large strike extents with manifestation of multiple pipe-like deposits. Very little effective deep drilling has been undertaken at Mt Boppy to test for depth and strike extents. High grade sporadic drill intercepts and multiple historical mines occur in the camp.

MA recommends that the Mt Boppy-Canbelego gold camp (3x3 km footprint) should be evaluated as a whole, integrating geology, a strong understanding of structural and stratigraphic controls (at Mt Boppy and other Cobar deposits), geophysics and geochemical datasets in 2D and 3D.

Other prospects on the wider exploration licence have notably not been tested for gold. There is scope for rapid assessment of areas under cover through application of bedrock Aircore drilling combined with multi-element geochemistry.

#### 1.8.2 Manuka

MA recommends that a thorough review of geology, with an emphasis on structural-stratigraphic relationships is undertaken as a first step in the exploration program for further Ag-Pb-Zn mineralisation at Wonawinta. The following tasks are considered high priority:

• Detailed outcrop mapping over the licence area and particularly along the trend of Manuka mineralisation should be a priority. There is no outcrop mapping other than that undertaken by the NSW Geological Survey, and a compilation map by North Ltd in the 1990's.

- Mapping and review of pit geology, with an emphasis on structures that control mineralisation. Limited pit mapping was undertaken during mining of the Manuka and Boundary pits.
- A geological synthesis of the area that uses all available data mapping, remote sensing, geophysics (including seismic) and drilling. Construction of a three-dimensional geological model covering the entire Property would be beneficial in understanding controls on mineralisation and would assist in targeting.
- Assessment of early stage prospects outside the main Ag-Pb-Zn mineralised zone using bedrock Aircore drilling combined with multielement geochemistry. The Manuka Property includes a significant tenement holding in a highly-prospective area with sparse exploration using under cover techniques.

Priority targets for exploration for silver-lead zinc mineralisation proximal to and within the current resource area (Mining Lease) can be divided into infill drilling, near-mine extension drilling and other targets outside resource areas:

# 1.8.2.1 Infill drilling

- Undertake mine planning studies on oxide mineral resources within existing pits shells.
- Upgrade of oxide mineral resources from Indicated to Measured and from Inferred to Indicated classification within existing pits shells.

# 1.8.2.2 Near-mine extension

- Potential oxide mineralisation adjacent to existing pit shells.
- Definition of fresh mineralisation adjacent to pit shells.
- Extensions to fresh mineralisation below and along strike of the pit shells.

#### 1.8.2.3 Other targets

- Areas of potential oxide mineralisation (limestone within 50m of the surface) along strike outside the Mining Lease.
- Deeper structural zones within fresh mineralisation along strike outside the Mining Lease, as identified in limited drilling.
- Sampling work north of the Mining Lease in areas associated with high zinc soil anomalies.

Significant untested or only limited tested targets for exploration exist within Exploration Licences adjacent to the Mining Lease as follows:

- Conductive bodies (EM targets) indicative of potential sulphide mineralisation within, and along strike from, the Mining Lease.
- Carbonate-hosted lead-zinc-silver in structural positions other than the main Manuka mineralisation trend, e.g. Smiths Tank Anticline.
- Cobar-style polymetallic (Cu-Au-Pb-Zn-Ag) mineralisation in Amphitheatre Group sedimentary rocks in the northern Property area.
- Epithermal gold mineralisation similar in style to the McKinnons mined gold deposit.

# 1.8.3 Wonawinta Metallurgy

Current understanding of metallurgical parameters is not well defined and does not adequately address the potential for exploiting sulphide and oxide mineralisation in limestone/dolostone. As mineralisation is defined or resources are upgraded, future test work should be prioritised.

## Manuka Resources Limited's targets for exploration and use of funds

Torgot	Target Drocposts Work Description		Use o	Use of funds	
Target	Prospects	Work Description	A\$5M IPO	A\$7M IPO	
		Manuka Targets			
Brownfields evaluation of near mine extensions on Wonawinta Mining Title. Wonawinta Style Ag-Pb-Zn	Bimble, Belah, Boundary	Targeting known silver-lead-zinc resources and prospects on permitted ML to extend and identify additional mineralsiation. Both oxide and high-grade primary Ag-Pb-Zn sulphide potential will be evaluated. Extensive geophysical coverage (IP, VTEM, Mag) and new structural-stratigraphic interpretations demonstrate strong NE structural (possible feeders) control. Drilling (RC) will be prioritised.	\$900,000	\$1,190,000	
Greenfields exploration on exploration licences. Wonawinta Style Ag-Pb-Zn	Smiths Tank, South Boundary, Wonawinta North	<u>Smiths Tank</u> : Western stratigraphic extension of the Wonawinta Ag-Pb-Zn deposit. <u>South Boundary</u> (brownfields): Drill extension of known Boundary resource south into EL. <u>Wonawinta North</u> : Drill test zinc-rich, silver poor oxide mineralisation and soil anomalies. Aircore and multielement geochemistry.	\$75,000	\$300,000	
Greenfields exploration on exploration licences. Cobar- style polymetallic (Au. Cu. Bh. Za. Ag)	Cobar Style: Goldwing, Guzzi, Lerida, and lower priority targets	Multiple greenfields prospects with soil geochemistry anomalies, coincident geophysical anomalies and interpreted favourable structural setting. No or sparse drill follow-up. To test for shallow manifestations of Cobar-style polymetallic mineralisation, an initial program of rapid Aircore and multielement geochemistry is proposed for near-surface targets. RC/Diamond drilling will be used for follow-up and deeper targets.	\$75,000	\$200,000	
(Au-Cu-Pb-Zn-Ag) and Epithermal gold Epithermal gold: McKinnons and nearby prospects		Evaluation of structural controls and effectiveness of prior exploration and datasets. Aircore with multielement geochemistry and potential CSAMT geophysical survey to explore for resistive quartz vein zones and extensions of epithermal gold mineralisation.	\$50,000	\$100,000	
Study Work	Wonawinta	Metallurgical drilling and test work for new Wonawinta near-mine extensions.		\$120,000	
Total Manuka Exploration		\$1,100,000	\$1,910,000		
Brownfields exploration: Mt Boppy Mine titles and the wider Mt Boppy- Canbelego Gold Camp for gold-rich Cobar-style polymetallic	Mine titles: Boppy Southern extension, Boppy northern extension, Exploration Licence: Mt Boppy South, Birthday, East Mt Boppy Mine Wealthof Nations, Canbelego King, , Reid- Rankens	Targeting potential extensions of gold mineralisation on permitted ML/GL to identify additional gold resources. Undertake geological and structural synthesis, consider CSAMT geophysics and spectral analysis to facilitate structural and mineralisation model interpretation. Exploration for Gold: Geological and structural synthesis of 3x3km Gold Camp with abundant historical workings not evaluated. Geophysical acquisition: Magnetics, and CSAMT (resistivity to identify potential gold and vein structures). Drilling: Aircore with testing for multi-element geochemistry, lithogeochemistry, spectral analysis. Follow- up RC and oriented diamond drilling (with structural analysis)	\$476,000	\$1,269,000	
Greenfields exploration on exploration licences. Cobar- style polymetallic (Au-Cu-Pb-Zn-Ag)	Central Structural Zone: Florida Volcanics, Birthday prospect, Native Dog Hill, Native Cat, Scrubby Tank, C2A	Refine geological model, focus on understanding structural setting and paragenesis of alteration (whether it is barren metamorphic or shows evidence of mineralisation events) through application of multielement geochemistry techniques. Consider spectral analysis to facilitate vectoring. Undertake deeper RC with Diamond tails and oriented core as required.	\$50,000	\$200,000	
Greenfields exploration on exploration licences. Cobar- style polymetallic (Au-Cu-Pb-Zn-Ag)	Soil anomalies (Geweroo/Nerang) and Other Targets	Soil targets with no drilling: Initial follow up with Aircore and bedrock multielement geochemistry traverses. Other Targets: Review and consideration of effective data coverage and broader structural setting. Application of Aircore and bedrock multielement geochemistry traverses to enable prioritisation. Drilling.	\$75,000	\$200,000	
	Tota	I Manuka Exploration	\$601,000	\$1,669,000	
		•			

#### 1.9 MA'S OPINION

Based on MA's assessment it is our opinion that the proposed operations and exploration are of sound technical merit and is considered to have sufficient potential to warrant a recommencement of mining, processing, exploration, resource evaluation drilling and metallurgical study. Within Manuka's granted Mining Licence (ML 1659; Wonawinta) MA considers that the proposed exploration and drilling programs are designed to, and are appropriate for, delineation of further oxide mineralisation and the better definition of the current inferred resource and upgrade conversion to indicated and measured categories.

Manuka intends to raise between A\$5 million and A\$7 million in the IPO process. Manuka's Exploration programs amount to between A\$1.7 million and A\$3.6 million expenditure. In MA's opinion the Strategy and work program is well considered, and the expenditure proposed on the Manuka and Mt Boppy Properties is appropriate and adequate.

Manuka's commitments to exploration and production activities satisfy the requirements of ASX listing Rules 1.3.2(b) and 1.3.3(b). MA also understands that Manuka has sufficient working capital to carry out its stated objectives, satisfying the requirements of ASX listing Rules 1.3.3(a).

Manuka has prepared staged exploration, development and production programs and budgets (Implementation Plan), specific to the potential of the project, and which are consistent with the budget allocations. MA considers that the relevant areas have sufficient technical merit to justify the proposed programs and associated expenditure satisfying the requirements of ASX listing Rules 1.3.3(a). The proposed exploration budget also exceeds the anticipated minimum statutory annual expenditure commitments on the various project tenements.

#### 1.10 CONSENTS

MA has provided consent for the inclusion, in full, of the Independent Technical Report in the prospectus and to the inclusion of statements made by Manuka, in the form and context on which the report and those statements appear and has not withdrawn that consent before lodgement of the prospectus with the ASIC.

# 2 INTRODUCTION

# 2.1 ISSUER

This report is a Technical Report ("ITR") of the geology, exploration and current mineral resource and reserve estimates for the Mt Boppy Gold Property and the Manuka silver-lead-zinc Property near Cobar in New South Wales, Australia. Mining Associates Pty Ltd ("MA") was commissioned by Manuka Resources Limited ("Manuka" or "MRL") in January 2020 to prepare the ITR on the Property.

MA has not been requested to provide an Independent Valuation, nor has MA been asked to comment on the Fairness or Reasonableness of any vendor or promoter considerations, and therefore no opinion on these matters has been offered.

# 2.2 TERMS OF REFERENCE AND PURPOSE

Manuka intends that this report be used as an Independent Technical Report. At Manuka's request, the scope of MA's inquiries and of the report included the following:

- Compile all relevant data (drilling, geology, geophysics, geochemistry, previous resource estimates) for the Manuka and Mt Boppy Properties.
- Compile geological model (stratigraphy and structure) for the Wonawinta Property using drilling, geochemistry and geophysics.
- Provide a resource estimate for in situ resources at the Mt Boppy and Wonawinta deposit and Resource report in accordance with JORC Code (2012).
- Define total mineralisation within the tenements and define exploration potential based on geology, geophysics, drilling and soil sampling.
- Review mining and processing activities carried out to date at Mt Boppy and Wonawinta sites, including assessment of the current condition of the plant and the Manuka Implementation Plan for recommencement of operations.
- Assess the effectiveness of previous mineral processing activities at Wonawinta and the level of metallurgical testing carried out by the previous operators of the project.

This report also includes JORC Table 1 prepared by MA and AMDAD, the Mt Boppy Ore Reserves as prepared by AMDAD and a summary of the Manuka Implementation plan.

# 2.3 AUTHORS

The following personnel were responsible for compiling this report:

**Mr Ian Taylor** is the principal author and Competent Person and takes responsibility for sections 10 to 12 and 14 of this report. Mr Taylor is a Principal Resource Geologist at Mining Associates' Brisbane office. He has over 20 years' experience in the minerals industry working in open pit and underground mines and exploration roles. Mr Taylor has a BSc (Hons) Geology from James Cook University and a Graduate Certificate in Geostatistics from Edith Cowan University. Mr Taylor is a Member of the Australasian Institute of Mining and Metallurgy and Chartered Professional of that institution. He is also a Member of the Australian Institute of Geoscientists. Mr Taylor has the relevant qualifications, experience and independence to be considered a Competent Person as defined in the JORC Code (2012).

**Dr James Lally** is a Competent Person and takes responsibility for sections 1 to 9, and 23 to 24 of this report. Dr Lally is a Principal Geologist at Mining Associates' Brisbane office. Dr Lally has degrees from the University of Newcastle-upon-Tyne (BSc (Hons) Geology), the University of Leicester (MSc Mineral Exploration and Mining Geology) and James Cook University (PhD). He has over 20 years'

experience in the mineral exploration and mining industry. Dr Lally is a Member of the Australian Institute of Geoscientists and a Member of the Society of Economic Geologists. Dr Lally has the relevant qualifications, experience and independence to be considered a Competent Person as defined in the JORC Code (2012).

**Chris Desoe** is a Competent Person and takes responsibility for the Sections 15 and 16 of this report. Mr Desoe is a Principal Consultant at the Australian Mine Design and Development Pty Ltd ("AMDAD") Brisbane office. Chris has more than 30 years of experience in hard rock mining covering evaluation, design, research, development and operations, including more than 20 years of relevant experience in operations and consulting for open cut metalliferous mines. Mr Desoe is a Fellow and Chartered Professional (Mining) of the AusIMM. He has the relevant qualifications, experience and independence to be considered a Competent Person as defined in the JORC Code (2012).

**Craig Brown** has reviewed, and compiled information provided by Manuka for Sections 13 and 17 to 22 of this report. Mr Brown is a Principal Processing Engineer at Mining Associates' Brisbane office and has over 30 years' experience in metallurgical engineering, management and consulting in the mineral processing / mining industries. Experience includes management levels for operating companies, project design and engineering through to commissioning for both smaller and major complex processing facilities and provision and management of consulting services to new projects and current operations. Mr Brown is a member of the AUSIMM.

# 2.4 INFORMATION USED

This report is based on technical data provided by Manuka Resources Limited to MA. Manuka Resources Limited provided open access to all the records necessary, in the opinion of MA, to enable a proper assessment of the project and resource estimates. Manuka Resources Limited has warranted in writing to MA that full disclosure has been made of all material information and that, to the best of the Manuka Resources Limited's knowledge and understanding, such information is complete, accurate and true. Readers of this report must appreciate that there is an inherent risk of error in the acquisition, processing and interpretation of geological and geophysical data, and MA takes no responsibility for such errors.

Additional relevant material was acquired independently by MA from a variety of sources. The list of references at the end of this report lists the sources consulted. This material was used to expand on the information provided by Manuka Resources Limited and, where appropriate, confirm or provide alternative assumptions to those made by Manuka Resources Limited.

A period of eight weeks was spent on data collection and analysis and preparation of this report.

Geological information usually consists of a series of small points of data on a large blank canvas. The true nature of any body of mineralisation is never known until the last tonne of ore has been mined out, by which time exploration has long since ceased. Exploration information relies on interpretation of a relatively small statistical sample of the deposit being studied; thus, a variety of interpretations may be possible from the fragmentary data available. Investors should note that the statements and diagrams in this report are based on the best information available at the time but may not necessarily be absolutely correct. Such statements and diagrams are subject to change or refinement as new exploration makes new data available, or new research alters prevailing geological concepts. Appraisal of all the information mentioned above forms the basis for this report. The views and conclusions expressed are solely those of MA. When conclusions and interpretations credited specifically to other parties are discussed within the report, then these are not necessarily the views of MA.

# 2.5 SITE VISIT BY QUALIFIED PERSONS

Mr Ian Taylor visited the Mt Boppy and Manuka Properties on 16<sup>th</sup> March 2016. At Wonawinta, operations have been on care and maintenance since late November 2015 and neither mining nor exploration activity has been carried out since then. At both sites, Mr Taylor viewed lithologies; structures and alteration halos exposed in inactive open pits, but did not see any core, RC chips, or storage facilities. Production records confirm the extent and grade of known mineralisation and it was not deemed necessary to collect independent samples.

Mr Taylor has sufficient experience which is relevant to the styles of mineralisation and deposits under consideration (Mississippi Valley Type, structurally controlled hydrothermal base metal and gold deposits) and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (Australia). He is a Certified Professional by the Australasian Institute of Mining and Metallurgy. Mr Taylor is employed by Mining Associates Limited in Australia.

Chris Desoe, Competent Person for overall Ore Reserves sign-off, undertook a site visit at the Mt Boppy Mine Site and Manuka Processing Plant Site on 20th February 2020, including an inspection of the following:

- Open cut mining area
- External waste rock dump area
- ROM ore stockpile area
- Process plant facility and tailings dam area
- General infrastructure and access roads

At the time of the site visit the Mt Boppy open cut was filled with water up to approximately 217mRL. This obscured the base of the existing pit and prevented visual verification of the state of those benches below 215mRL.

On behalf of Mining Associates, Craig Brown undertook an independent review of the Mt Boppy Implementation Plan prepared by Manuka Resources (Griffith, Foster, Fittock, Power, & Lynch, 2020) and visited the Mt Boppy and Manuka Properties on January 28, 2020.

# **3 RELIANCE ON OTHER EXPERTS**

MA has relied on the Mt Boppy Implementation Plan prepared internally by Manuka personnel (Griffith, Foster, Fittock, Power, & Lynch, 2020). The Implementation Plan document outlines the proposed recommencement of operations at both the Mt Boppy and Wonawinta sites.

# 4 PROPERTY DESCRIPTION AND LOCATION

The Manuka Property is located in the central part of New South Wales at latitude 32.2° South and longitude 145.75° East (Figure 4-1). The nearest population centres include Cobar, approximately 85 km north and Nymagee, approximately 55 km east.

The Mt Boppy Property is located approximately 490km northwest of Sydney, 55km east of the mining town of Cobar in New South Wales, on the site of the historic Mt Boppy Gold Mine which is adjacent to the Canbelego township (Figure 4-1).

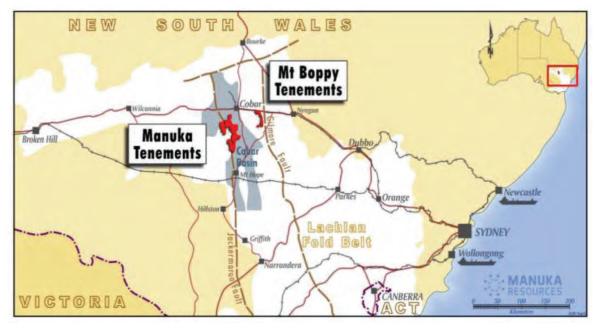


Figure 4-1: Property locations.

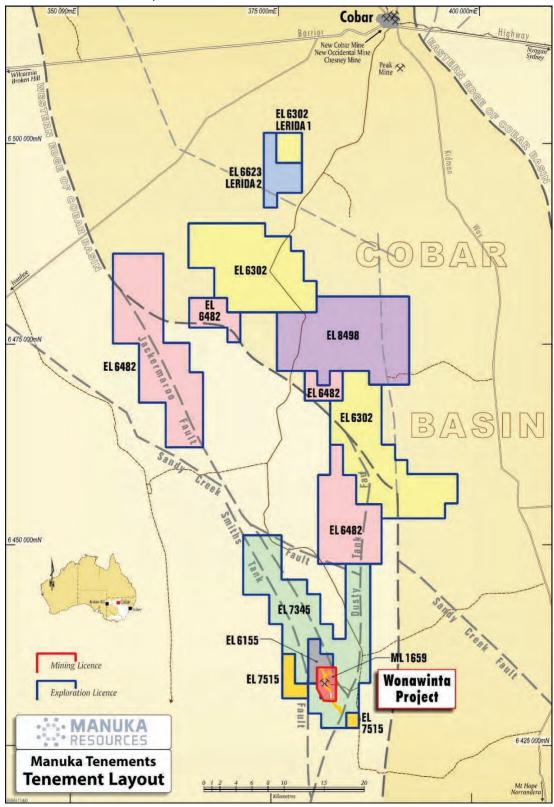
# 4.1 **PROPERTY TENURE**

Manuka Resources Limited ("MRL") holds title to one Mining Lease (ML) and seven Exploration Licences (EL) at the Manuka Property and, through its subsidiary Mt Boppy Resources Pty Ltd ("MBR"), seven Mining titles (ML and GL) and one Exploration Licence (EL) at the Mt Boppy Property as detailed in Table 4-1 and shown in Figure 4-2 and Figure 4-3.

Licence ID	Grant date	Last renewal date	Expiry date	Area (km²)	Company
ML1659	23-Nov-11	23-Nov-11	23-Nov-32	9.24	MRL
EL6482	18-Nov-05	7-Mar-17	18-Nov-21	268.21	MRL
EL7345	25-May-09	30-Mar-17	25-May-22	169.18	MRL
EL6155	17-Nov-03	16-May-17	17-Nov-21	10.54	MRL
EL6302	23-Sep-04	8-Feb-17	23-Sep-21	280.02	MRL
EL7515	7-Apr-10	26-Jul-17	07-Apr-22	14.53	MRL
EL6623	31-Aug-06	20-Jun-19	31-Aug-20	26.24	MRL
EL8498	10-Jan-17	Renewal Pending	10-Jan-20	139.93	MRL
GL 3255	20/05/1926	8/07/2014	20/05/2033	8.3ha	MBR
GL 5836	15/06/1965	8/07/2014	15/06/2033	6.0ha	MBR
GL 5848	15/02/1968	8/07/2014	15/06/2033	8.6ha	MBR
GL 5898	21/06/1972	8/07/2014	12/12/2033	7.5ha	MBR
ML 311	08/12/1976	8/07/2014	12/12/2033	10.1ha	MBR
ML 1681	12/12/2012	12/12/2012	12/12/2033	188.1ha	MBR
MPL 240	17/01/1986	8/07/2014	12/12/2033	17.8ha	MBR
EL5842	19/04/2001	3/07/2017	19/04/2021	204.05	MBR

Table 4-1. Manuka and Mt Boppy property tenement details.

MA has not undertaken any title search other than viewing on-line government tenement map databases or due diligence on the tenement titles or tenement conditions. The tenement's status



has not been independently verified by MA. The tenement report in the prospectus provides full details on the tenement portfolio status.

Figure 4-2: Manuka Property tenements.

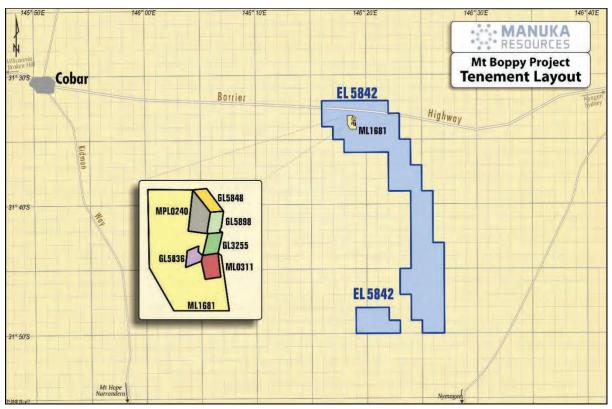


Figure 4-3: Mt Boppy Property tenements.

#### 4.2 PROPERTY OWNERSHIP, RIGHTS AND OBLIGATIONS

Title to the Manuka Property is held 100% by Manuka Resources Limited.

Manuka Resources Limited through its subsidiary Mt Boppy Resources Pty Ltd, holds 100% title to the Mt Boppy Property.

#### 4.3 ROYALTIES, AGREEMENTS AND ENCUMBRANCES

To the extent known by MA, there are no option agreements, joint venture terms in place, compensation agreements or obligations on ground covered by claims for the Property.

Royalties on produced metals are payable to the New South Wales government annually at the following rates.

- Silver: 4% ex-mine value (value less allowable deductions)
- Lead: 4% ex-mine value (value less allowable deductions)
- Zinc: 4% ex-mine value (value less allowable deductions)
- Copper 4% ex-mine value (value less allowable deductions)
- Gold 4% ex-mine value (value less allowable deductions)

MRL is obliged to pay a vendor royalty of A\$33/oz capped at a maximum of A\$495,000 (ex-GST) as described in the Prospectus.

## 4.4 ENVIRONMENTAL LIABILITIES

MA is not aware of any Environmental Liabilities.

#### 4.5 REQUIRED PERMITS FOR MINING AND EXPLORATION WORK

Outside of those incurred in the normal course of project development and as disclosed in the Mining Operation Plan (MOP) lodged for each company, permits for mineral exploration and mining activities are managed by the New South Wales Department of Planning, Industry and Environment under the Mining Act (1992). The grant of an Exploration Licence, or Mining Lease provides the holder with the necessary approvals for activities on those leases.

The holder of a Mining Lease has the exclusive right to mine for minerals over a specific area of land. A development consent under the Environmental Planning and Assessment Act 1979 (EPA Act) must also be in place before a Mining Lease can be granted.

All new mining projects, and modifications to existing projects, require approval under the EPA Act before they can commence. As part of this approval process, the proponent must prepare an Environmental Impact Statement (EIS). The EIS is a comprehensive document that covers issues such as air quality, noise, transport, flora and fauna, surface and ground water management, methods of mining, landscape management and rehabilitation. Extensive public consultation is also required, with community members encouraged to make submissions on the application.

The holder of an Exploration Licence is subject to the condition that assessable prospecting operations cannot be carried out unless an exploration activity approval has been obtained. Assessable prospecting operations include any activity that requires significant ground disturbance, such as drilling. Most other exploration activities (mapping, rock or soil sampling, geophysics) are considered low impact and do not require approval.

# 4.6 OTHER SIGNIFICANT FACTORS AND RISKS

To the extent known by MA there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.

# 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

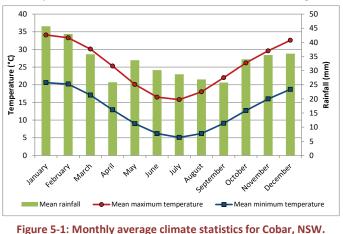
# 5.1 ACCESS

Access to the Manuka Property from Cobar is by the sealed Kidman Way highway (approximately 80 km) and a network of dry weather gravel roads (approximately 30 km).

Access to exploration areas and prospects and the Mt Boppy mine site is via the Barrier Highway located on the northern edge of the tenement, and the Canbelego-Nymagee Road which traverses the entire N-S extent of EL5842. Further access to the tenement is obtained via dry weather Shire roads and property access tracks located within the EL area.

# 5.2 CLIMATE

The Property area has a semi-arid climate with hot summers and cool winters. Average minimum temperatures range from 5°C to 20°C and average maximum temperatures from 16°C to 34°C. It has a median annual rainfall of 390 mm. Rainfall is extremely variable, particularly in late summer and early spring. Average monthly climate statistics for Cobar are shown in Figure 5-1.



Data source: Australian Bureau of Meteorology

#### 5.3 LOCAL RESOURCES

The nearest main centre is Cobar, with a population of approximately 3,800 people. Cobar serves as a centre for the local pastoral and mining industries.

#### 5.4 INFRASTRUCTURE

A Mining Lease is granted over the Mt Boppy site; power and water are available. Onsite infrastructure includes an operational camp site, a tailings storage facility (TSF), and waste rock disposal areas.

The Wonawinta site was a mining operation until May 2015 and has been on a care and maintenance status since December 2015. A Mining Lease is granted over the main project area; power and water are available. Onsite infrastructure includes a processing plant and operational camp site, a tailings storage facility (TSF), and waste rock disposal areas.

## 5.5 PHYSIOGRAPHY

The land is undulating and used primarily for grazing with minor cereal cropping. Topography is defined by low ranges of hills and broad valleys that trend north-northwest, following the regional strike of Devonian-age rocks. Elevation varies between approximately 220 m AMSL to 335 m AMSL.

# **6 HISTORY**

# 6.1 MT BOPPY

## 6.1.1 Previous ownership and exploration

Previous owners of the Property licences include Le Nickel (Australia) Pty Ltd , Mines Exploration Pty Ltd (MEPL), Dowmill Pty Ltd, Epoch Mining NL, Golden Cross Resources Ltd (GCR-GCO), Polymetals Group and Black Oak Minerals (Table 6-1). Exploration conducted on the property is summarised in Table 6-2. Prospects are shown in Figure 6-1.

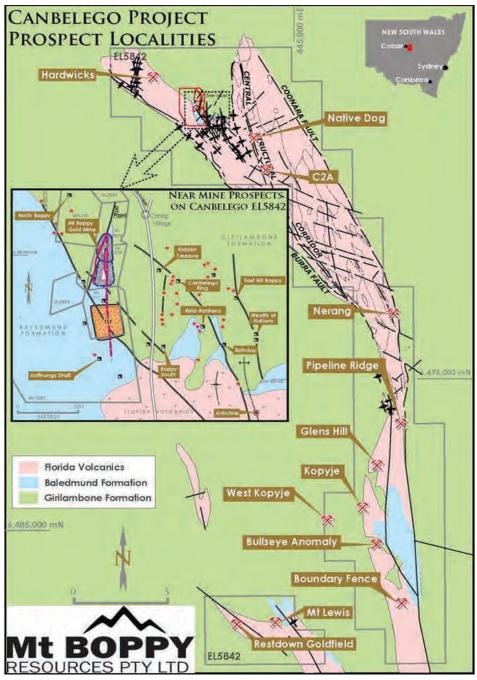


Figure 6-1: Current Mt Boppy Property tenements and significant prospects.

Historic EL	Historic EL Holder	Historic EL Start Date	Historic EL End Date	Overlapping Current Licences
EL0011	Anaconda Australia Inc	1/01/1965	1/01/1967	EL5842, GL5848, GL5898, ML311, ML1681, MPL240
EL0015	Ausminda Pty Ltd	1/07/1965	1/07/1966	EL5842
EL0123	Cyprus Mines Corporation	1/01/1968	1/02/1973	EL5842
EL0166	AMAD NL	1/05/1969	1/05/1970	EL5842, GL5898, ML311, ML1681, MPL240
EL0393	Tai Pan Explorations Pty Ltd	1/01/1971	1/01/1972	EL5842
EL0444	Nickel Mines Ltd	1/01/1970	1/05/1972	EL5842, GL5898, ML311, ML1681, MPL240
EL0620	Le Nickel (Australia) Pty Ltd	1/08/1973	1/08/1977	EL5842, GL5898, ML311, ML1681, MPL240
EL0637	Mines Exploration Pty Ltd	1/10/1973	1/10/1977	EL5842
EL0801	Mines Exploration Pty Ltd	1/07/1975	1/09/1977	EL5842
EL1109	Penarroya Australia Pty Ltd	1/05/1978	1/05/1982	EL5842
EL1249	Amoco Minerals Australia Company	1/01/1979	1/10/1983	EL5842
EL1475	Pacific Copper Mines Ltd	1/10/1980	1/03/1983	EL5842, ML1681, MPL240
EL2032	Dowmill Pty Ltd	5/07/1983	4/07/1993	EL5842, ML1681
EL2058	Dowmill Pty Ltd	23/08/1983	1/07/1993	EL5842, ML1681, MPL240
EL2366	Duval Mining (Australia) Ltd	1/02/1985	1/12/1986	EL5842
EL2417	CRA Exploration Pty Limited	1/05/1985	1/05/1986	EL5842
EL2912	Epoch Mining NL	1/08/1987	13/08/1990	EL5842
EL3374	Epoch Mining NL	1/03/1989	31/08/1990	EL5842
EL3737	Dowmill Pty Ltd	1/01/1991	7/01/1993	EL5842
EL3845	Placer Exploration Ltd	1/05/1991	17/07/1992	EL5842
EL3847	Blackdown Investments Ltd, Sulphide Exploration and Investment Co Pty Ltd, Telluride Mining NL	1/05/1991	14/05/1993	EL5842
EL4539	CRA Exploration Pty Limited	2/07/1993	24/04/1996	EL5842
EL4589	CRA Exploration Pty Limited	15/09/1993	11/10/1996	EL5842, ML1681
EL4653	Golden Cross Operations Pty Ltd	18/04/1994	3/04/1996	EL5842
EL4743	Golden Cross Operations Pty Ltd	8/12/1994	19/03/1999	EL5842
EL4974	Golden Cross Operations Pty Ltd	3/04/1996	19/03/1999	EL5842
EL5131	Dowmill Pty Ltd, Nosebi Mining & Management Pty Ltd	11/10/1996	10/10/1998	EL5842
EL5156	Golden Cross Operations Pty Ltd	18/11/1996	19/03/1999	EL5842
EL5295	Polymetals Pty Ltd	7/05/1997	6/05/1999	EL5842
EL5553	Golden Cross Operations Pty Ltd	9/02/1999	8/02/2001	EL5842, ML1681
EL5562	Golden Cross Operations Pty Ltd	19/03/1999	21/02/2001	EL5842
EL5677	Golden Cross Operations Pty Ltd	19/01/2000	18/06/2001	EL5842, ML1681

# Table 6-1: Mt Boppy Property historic licence summary.

Company	Years	Work completed	Results
Anaconda Australia Inc	1965-1967	Large regional tenement in Canbelego Nymagee area; preliminary geological, geochemical and some geophysical work was completed. 4,633 samples analysed for Cu, Pb, Zn and a selection for other metals.	All old mines and prospects were located and examined, most were recommended for relinquishment. Two prospects, Elaine and Redstone Copper Mine warranted further attention (not in EL5842).
Ausminda Pty Ltd	1965-1966	Large regional tenement covering Cobar- Mineral Hill area. Soil sampling and rotary boreholes at Mt Boppy; IP surveying at Canbelego.	10 rotary boreholes drilled at Mount Boppy Mine 100 feet apart on two lines between the "glory holes"; RDH2 best intersection of 24m @ 6.4g/t Au
Cyprus Mines Corporation	1968-1973	12 percussion holes on Glen's Hill testing strike extent of the Restdown Copper Mine.	All holes intersected coarse grained pyritic pyroclastics. Cuttings were not assayed for gold.
AMAD NL	1969-1970	Literature search on Canbelego area. North- eastern aeromagnetic anomaly investigated by proline drilling, old workings of Canbelego Copper Mine examined with several IP lines were surveyed.	Drilling samples contained low Cu values; IP survey lines results were disappointing, and no further work was recommended
Tai Pan Explorations Pty Ltd	1971-1972	Summary of geology and BMR regional geophysical survey; summary of known copper occurrences including Geweroo area.	No on-ground work in current area of EL5842.
Nickel Mines Ltd	1970-1972	Large regional tenement covering most of EL5842; carried out field mapping and geochemical sampling.	Concluded that any large mineral deposit would only be found at depth and cancelled the licence.
Le Nickel (Australia) Pty Ltd	1973-1977	Detailed outcrop mapping, northern part of Canbelego-Mineral Hill Basin aeromagnetics at 400m line spacing and follow-up with ground surveys over Anomalies C2A and C5. Anomalies C2A and C5 diamond drilled with 8 holes (C2A), 1 hole (C5) and 2 holes (Canbelego King).	Exploration model was based on magnetic signature of Cobar type deposits. Diamond drilling at C2A and C5 Anomalies revealed the potential for a stratiform Zn-Pb-Cu-Ag deposit potential within the Canbelego Beds above the Girilambone unconformity.
Mines Exploration Pty Ltd	1973-1977	Regional mapping and bedrock auger geochemistry drilling programs, dipole- dipole IP surveying at various line and electrode spacings on the project area including Pipeline Ridge, Geweroo/Nerang & Geweroo prospects. Diamond drilling comprised 9 holes (Pipeline Ridge); 2 holes (Geweroo/Nerang); 2 holes (Glen's Hill).	Drilling at the Restdown copper prospect (Glen's Hill) 3km north of Kopyje homestead confirmed weak base metal mineralisation. Better results from Pipeline Ridge with the discovery of base metal mineralisation with anomalous gold and silver values grading up to 4.9m at 3.12% Cu, 3.7% Zn, 180 ppm Ag and 7 g/t Au.
Penarroya Australia Pty Ltd	1978-1982	Formerly Le Nickel, investigated five aeromagnetic anomalies: C4, Pooraka, Whinfell, C2A and C2B using ground magnetics, gravity, detailed geological mapping, seismic surveying and diamond drilling (7 holes).	Diamond drilling intersected extensions to previously known Zn-Pb-Cu-Ag mineralisation at C2A Anomaly but considered too low-grade with deep cover. No further work was recommended. No mineralisation intersected at C4, Pooraka & C2B anomalies
Amoco Minerals Australia Company	1979-1985	Detailed geological mapping and geophysical surveys including gravity. Resampling of MEPL's drill core from Pipeline Ridge for gold, 600 m shallow percussion drilling (15 holes) testing for supergene gold mineralisation. Follow-up work in 1984 by Homestake farm-in	Programs tested for massive sulphides without success and later the emphasis was placed on gold potential, focussing on the Pipeline Ridge prospect. No supergene zone was intersected, but primary mineralisation was intersected in drill hole PRP-10. The later exploration

Company	Years	Work completed	Results
		included relogging MEPL diamond core, IP surveys, petrology, and RAB drilling (229 holes/3,085m). Cyprus in 1987 drilled shallow Airtrac percussion holes (35 holes/1,722m). Arimco completed BLEG sampling at Pipeline Ridge and Glen's Hill prospects. In 1993, Timmsco Pty Ltd drilled 10 RCP holes/653m, along with soil sampling and geophysical surveys.	work commencing in 1984 conducted at Pipeline Ridge and Glen's Hill retained interest in both of these prospects until Golden Cross Operations consolidated the tenure in ELs 4653 and 4743 (Pipeline Ridge & Sarona Downs) in 1994.
Pacific Copper Mines Ltd	1980-1983	Geological mapping, ground geophysical surveys, mine dump sampling, and shaft sampling followed by two drill programs totalling 24 percussion holes on PL0961.	Original target of alluvial gold sourced from Mt Boppy, changed to primary mineralisation at McGuiness Lode. Drilling intersected anomalous gold and base metals. West Boppy hole DCB-1 to 120m best result 1m @ 1.43g/t Au from 91m. Drilling and sampling of 50-foot level used for resource estimate (non- JORC) of 30,000t@ 6g/t gold with strike extensions over 50 metres giving another 30,000 tonnes.
Dowmill Pty Ltd	1983-1993	Photogeological mapping and rock chip sampling; selective bedrock geochemistry from RAB drilling; airborne magnetic / radio metrics survey; percussion and RC drilling of gold prospects (Anticline, Hoffnungs, Native Dog Hill & Newhaven); diamond drilling of Hardwicks, Hoffnungs and Anomaly C2B-W; Ground magnetic survey of C2A prospect.	Testing Baledmund Fm and Florida Volcanics next to Mt Boppy Mine considered analogous to Cobar corridor. Discontinuous gold anomalism on the Newhaven-Wealth of Nations line. Maximum RAB result - 1.9 g/t Au, rock chip 4.43g/t Au. Hardwicks rock chips of up to 31.1 g/t Au. Five diamond drill holes (FRE 1-5) tested Hardwicks, magnetic anomaly C2B west and postulated southern extension of Mt Boppy in Hoffnungs crosscut.
Duval Mining (Australia) Ltd	1985-1986	Aeromagnetic and previous exploration data compilation; IP and ground magnetic surveys in three areas, Kuralee, Whinfell and Sarona then tested with shallow percussion drilling.	No significant mineralisation intersected. All magnetic, IP and geochemical anomalies explained by magnetite bearing volcanics. Stratabound ironstone at Sarona had no significant mineralisation
CRA Exploration Pty Limited	1985-1986; 1993-1996	Ground geophysics (magnetics and SP) and diamond drilling at Restdown prospect (EL2417). ELs 4539 & 4589 had only limited work; data review; follow-up of the gold potential for six magnetic anomalies and 5 historical prospects and workings with lag, rock chip and petrology; 10 drill holes to test for extensions and repetitions of the mine lode at Mt Boppy and West Boppy.	Diamond drilling in 1985 was carried out to investigate a strong SP anomaly with associated anomalous float samples. Drilling results were disappointing with the only gold mineralisation being localised and associated with the contact between sericitic and carbonaceous schists (0.18 g/t Au). Lag and rock chip sampling had disappointing results; narrow sub- economic gold intersections returned from drilling near the Mt Boppy mine site.
Epoch Mining NL	1987-1990	Literature review, rock chip sampling, RAB drilling and BLEG drainage sampling.	ELs 2912 & 3374, focused on near surface gold mineralisation for Epoch's Canbelego CIP plant. Samples were analysed for Cu, Pb, Zn, Ag, As & Au, no additional anomalous gold areas.
Placer	1991-1992	Literature review of previous exploration;	Disseminated pyrite intersected in meta-

Company	Years	Work completed	Results
Exploration Ltd		gridding and ground magnetics (55-line km) over the Kopyje magnetic high; BLEG sampling at Pipeline Ridge; IP survey (2 lines) and one 150m RC hole at the Boundary Fence prospect.	siltstone, quartzite and minor volcanics at Boundary Fence prospect. No significant mineralisation was detected.
Blackdown Investments Ltd, Sulphide Exploration and Investment Co Pty Ltd, Telluride Mining NL	1991-1993	Literature review, attempts to find a joint venture partner were unsuccessful.	EL3847 was adjacent to Mt Boppy Mine to the east and included East Mt Boppy, Canbelego King, Reid and Ranken Mine, Newhaven Shaft and numerous tailings dumps.
Dowmill Pty Ltd, Nosebi Mining & Management Pty Ltd	1996-1998	Review of previous exploration; airborne magnetic-radiometric survey; auger/RAB bedrock geochemical survey over the Canbelego area; 50 RAB drill holes, 342 auger holes.	New gold anomalies up to 0.15 ppm Au generated that were later followed-up by Golden Cross Resources (see below).
Golden Cross Operations Pty Ltd	1994-Oct 2008	Extensive regional to prospect exploration including programs at Pipeline Ridge, Glen's Hill, Boundary Fence, Restdown Goldfield, Mt Lewis, Geweroo, Boppy South, Birthday Mine, Native Cat Hill, Native Dog Hill, Scrubby Tank and various magnetic anomalies. Numerous small mines/prospects close to Mt Boppy Mine tested using mapping, rock chip and soil sampling, IP surveys, auger C-horizon soil sampling, RAB, Aircore and RC drilling. Details include: Pipeline Ridge –mapping, rock chip and soil sampling, petrography, airborne and ground based geophysics (EM/magnetics/VLF); offset pole-dipole IP survey; 90 RC, and 5 core drill holes. Boppy South – mapping and rock chip sampling, auger C-horizon soil sampling, 13 costeans, RAB drilling, 25 RC drill holes. Birthday Mine – mapping, rock chip and soil sampling, gradient array IP survey, 33 RC drill holes. Native Cat/Native Dog, C2A/C5 & Scrubby Tank Prospects – mapping and rock chip sampling; auger C-horizon soil sampling, offset pole-dipole IP surveys, ground magnetics, 9 RC drill holes, 1 cored drill hole.	Pipeline Ridge – good supergene grades but preliminary resource (non-JORC Jun- 1996) was 725,000t at 0.6 g/t Au. Boppy South – some good high-grade intersections of quartz-chalcedony veins up to 27.6 g/t Au; preliminary block model resource (non-JORC Oct-2003) defined 3,200 oz at 4.4 g/t Au. Birthday Mine – Several wide but generally, low-grade intercepts e.g. GCB32 42m at 0.49 g/t Au. Native Cat/Native Dog, C2A/C5 & Scrubby Tank Prospects – IP targets generally not effectively tested; cored hole GCB131 intersected stratabound Pb-Zn-(Ag) mineralisation from 190m grading 1.8% Zn, 1.2% Pb & 5g/t Ag above the basement unconformity and then a chalcopyrite-calcite breccia in Girilambone Fm rocks with best result, 4m @ 1% Cu (low gold) at 312m.
Polymetals Group	2008-2013	Mapping and rock chip sampling between Birthday Mine and Hardwicks and also Restdown Goldfield; airborne radio metrics- magnetics survey over whole tenement; Sub-audio magnetics (SAM) surveys at Birthday Mine, C2A area and Pipeline Ridge; ground magnetics at Mt Boppy Mine; petrography on drill samples; stable sulphur isotope studies. Drilled a total of 69 RC drill holes and 59 core drill holes including Mt Boppy Mine (51 holes), Boppy South (32	Drilling at Mt Boppy produces a slight but not substantial increase to the resource inventory; Boppy South resource estimate of Indicated and Inferred 110,000t at 2.3 g/t Au for 8,000 oz of gold; Pipeline Ridge Exploration Target range 3.5Mt to 8.8Mt with grades between 0.5-0.8 g/t Au. Notably untested by drilling was SAM conductivity anomaly identified at Birthday Mine and two north-trending

Company	Years	Work completed	Results
		holes), Birthday Mine (6 holes), C5 Anomaly (6 holes), Hardwicks (3 holes), Boppy Blocks (3 holes), Pipeline Ridge (16 holes), Glen's Hill (1 hole), Womboin Street (1 hole) and NW Corridor (9 holes).	conductors at C2 area.
Southern Cross Goldfields Ltd	2013 -2014	Drill core assaying and downhole EM surveying (from previous PML drilling phase); petrography.	Disappointing results from Glen's Hill drilling; re-assessment of exploration strategy to emphasise locating non- outcropping mineralisation using local scale structural interpretation and recognition of likely fluid pathways at a basin scale.
Black Oak Minerals Ltd	2014-Nov 2015	Stratigraphic/structural/tectonics synthesis (SRTM imagery); assessment of advanced prospects for drilling; field reconnaissance at selected prospects; detailed geological/structural mapping of the Mt Boppy open pit; commenced Mt Boppy drill core re-assessment.	Identification of Birthday Mine, Native Dog Hill, Native Orange, Native Cat West, Scrubby Tank, Scrubby Tank West, Anomaly C2A, and Geweroo Anomaly areas for detailed follow-up including drilling.

# 6.1.2 Historic production

Gold was first discovered in the general Canbelego area in 1889. Major production at Mt Boppy did not commence until 1901 and continued to 1923 (Figure 6-2). The orebody delivered some 417,000 ounces gold at a notional head grade of 15 g/t gold (12.2 g/t gold recovered). Modern mining and processing operations and production are summarised in Table 6-3 and Table 6-4.

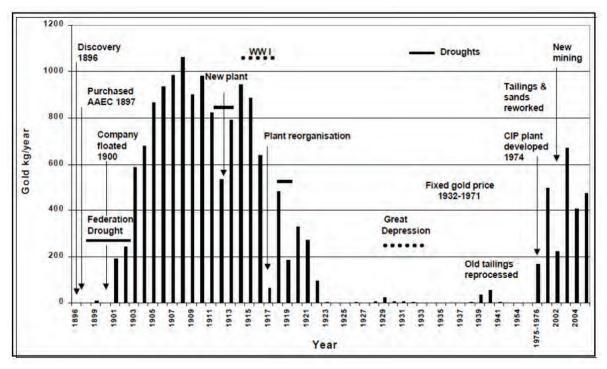


Figure 6-2: Mt Boppy Gold Mine production history (McQueen, 2005)

#### Company Activity Mount Gold discovery made from drainage panning/loaming; discovery site a small sub crop of quartz Ворру 1901veining surrounded by transported soils; Mount Boppy Gold Mining Company formed in 1900 to Gold mine 168 acres of gold leases that were secured around the discovery site. Mined over a strike Mining length of 400m to 240m depth. Company 2002-Polymetals Reopened mine and commenced open cut operations over the historic underground mine Polymetals Care and maintenance

#### Table 6-3: Mt Boppy Gold Mine operations.

2012	Polymetals	Care and maintenance
2012	Polymetals	Planning to reopen the mine with a major cutback to expose the main lode at depth. Schedule to produce approximately 65,000 ounces of gold over two years.
2015	вок	Cut-back of Mt Boppy open pit with ore to be trucked to Wonawinta mine for processing. Haulage of ore 152 km from Mt Boppy to Wonawinta plant commenced in mid-September 2015 using road trains, processing of ore commenced July 2015.
2015	ВОК	Close spaced in-pit RC drilling in October 2015 reduced resources and reserves. BOK placed into receivership on 27 November 2015. Early ore was lower grade and substantial waste removal was required to remove the saddle between what was the north and south pits.

#### Table 6-4: Mt Boppy mining and processing production.

		Total	Mar/15	Apr/15	May/15	Jun/15	Jul/15	Aug/15	Sep/15	Oct/15	Nov/15
Mining	Mining										
Mined material (ore_waste volume)	BCM	1,691,371	168,273	228,400	270,777	163,032	168,119	173,708	137,183	128,478	253,401
Ore Tonnes Mined	t	161,620			6,507	1,278	19,292	13,152	44,239	50,041	27,111
Grade Mined	g/t Au	3.39			2.000	3.000	2.516	3.123	2.838	4.300	3.700
Processing	•	•									
Leach feed	t	112,491						1,700	32,917	38,053	39,821
Grade Processed	g/t Au	3.25						2.50	2.55	3.13	3.98
Contained oz	oz Au	11,763						137	2,699	3,830	5,098
Recovery	%	74%						70%	80%	75%	71%
Contained oz in dore	oz Au	8,747						96	2,159	2,855	3,637

#### 6.1.3 Mt Boppy processing at Wonawinta

Date

1913

2005 2005-

The acquisition of the Wonawinta plant and infrastructure by BOK was largely driven by the economic benefits it would bring in enabling BOK to process gold ore from the Mt Boppy Gold Mine (acquired through its merger with Polymetals Mining). BOK previously had planned to redevelop the mine and upgrade the Mt Boppy plant to start gold production in 2015.

Mining at Mt Boppy by BOK commenced in March 2015 on the cut-back of the Mt Boppy open pit with the gold ore planned to be trucked to the Wonawinta mine for processing, eliminating the infrastructure development required at Mt Boppy. Mining and processing are shown in Table 6-4.

Processing of Mt Boppy ore delivered to Wonawinta commenced on 30 September 2015. Recovery at 80% was higher than planned while in the initial months the ore grade was lower than planned. The lower grade was reported to be a consequence of mining preliminary ore prior to entering higher grade zones, which were scheduled to be accessed in the December 2015 Quarter. Close-spaced in-pit RC drilling in October 2015 substantially reduced resources and reserves and BOK was placed into receivership on 27 November 2015.

# 6.1.4 Historic resource and reserve estimates

All mineral resources reported in this section are provided for informational purposes only and are superseded by the current Mineral Resource estimate contained in Section 14 of this report.

The historic Resource and Reserve figures presented are estimates of the tonnage, grade and contained metal of the deposit that are not verified as current mineral resources, or ore reserves, and which were prepared before Mt Boppy Resources entered into an agreement to acquire an interest in the Property.

JORC-compliant Mineral Resources and Ore Reserves figures were estimated on the Mt Boppy-Canbelego Project in 2015 by BOK. Initial resources quoted to the Australian Securities Exchange (ASX) as at 30 June 2014 and reported in the previous year were updated as at 30 June 2015 (Table 6-5 and Table 6-6). This was further updated as a downgrade in an announcement to the ASX on 27 November 2015, the same day that BOK entered into voluntary administration (Table 6-8 and Table 6-9).

The initial JORC Mineral Resource and Ore Reserves estimate, as at 30 June 2015 and released to the ASX on 4 August 2015 was an upgrade, following a lowering of the cut-off grade from 2.5g/t to 1.0g/t Au at the Mt Boppy Gold Mine. This was because most of the waste material in the pit cut back, which began in March 2015 had been removed. A small increase in gold reserves was due to a revised pit design to allow access to more of the Mineral Resource.

A revised estimate as at 31 October 2015 was reported on 27 November 2015 and accounted for mining depletion (126,000 tonnes mined at 3.3g/t Au) and results from in-pit infill RC drilling completed in October 2015. Re-interpretation and re-estimation within the then current mine design resulted in a significant decrease in tonnes and grade of interpreted higher grade mineralisation. The resulting Whittle pit optimisation undertaken on the new resource model was used to generate a revised Life of Mine Schedule and Ore Reserve. A smaller resource within EL 5842 previously reported by BOK for South Mt Boppy (Table 6-7) remains unchanged from 2014.

	Measured F	Resources	
Material Type	Tonnes (kt)	Grade (Au g/t)	Ounces (Au koz)
oxide	40	4.3	6
fresh	18	5.4	3
stope fill	-	-	-
Sub Total	58	4.6	9
	Indicated R	esources	
Material Type	Tonnes (kt)	Grade (Au g/t)	Ounces (Au koz)
oxide	20	3.9	3
fresh	453	4.2	60
stope fill	158	3.6	18
Sub Total	631	4.0	81
	Inferred Re	esources	
Material Type	Tonnes (kt)	Grade (Au g/t)	Ounces (Au koz)
oxide	9	2.3	1
fresh	112	3.2	11
stope fill	-	-	-
Sub Total	120	3.1	12
	Total Res	ources	·
Material Type	Tonnes (kt)	Grade Au g/t	Ounces (Au koz)
oxide	69	3.9	9
fresh	583	4.0	75
stope fill	158	3.6	18
TOTAL	809	3.9	102

## Table 6-5: Mt Boppy Measured Mineral Resources-June 2015 (1.0g/t cut off).

#### Table 6-6: Mt Boppy Ore Reserves-June 2015 (1.85g/t cut off).

Ore Reserves					
Tonnes (kt)         Grade Au g/t         Ounces (Au koz)					
Proven	35	6.0	7		
Probable	563	3.9	71		
TOTAL	598	4.1	78		

#### Table 6-7: South Mt Boppy Mineral Resources-June 2014 (1.0g/t Au cut off).

Mineral Resources				
	Tonnes (kt)	Grade Au g/t	Ounces (Au koz)	
Measured			-	
Indicated	105	2.3	7.6	
Inferred	5	2.0	0.3	
TOTAL	110	2.3	8.0	

Indicated Resources						
Material Type	Tonnes (kt)	Grade (Au g/t)	Ounces (Au koz)			
fresh	301	3.3	32			
stope fill	172	3.6	20			
sub total	474	3.4	52			
Inferred Resources						
Material Type	Tonnes (kt) Grade (Au g/t) Ounces (Au					
fresh	10	4.5	1			
stope fill	-	-	-			
sub total	10	4.5	1			
	Total Re	sources				
Material Type	Tonnes (kt)	Grade Au g/t	Ounces (Au koz)			
fresh	311	3.3	33			
stope fill	172	3.6	20			
TOTAL	483	3.4	53			

#### Table 6-8: Mt Boppy Mineral Resources-October 2015 (1.0g/t cut off)

#### Table 6-9: Mt Boppy Ore Reserves-October 2015 (2.00g/t cut off)

Ore Reserves - Probable						
Deposit         Tonnes (kt)         Grade Au g/t         Ounces (Au koz)						
Mt Boppy	408	3.3	43			
Mt Boppy ROM Stockpile	55	3.0	5			
TOTAL	463	3.2	48			

## 6.2 MANUKA

# 6.2.1 Previous ownership

Previous owners of the Property licences include Geopeko, CRAE, Burdekin Resources, Savage Resources, Pasminco, Triako Resources, Cobar Consolidated Resources Ltd and Black Oak Minerals. Table 6-10 summarises the dates and holding companies for all historic exploration licences that overlap with MRL's current Manuka property Licences.

Historic EL	Historic EL Holder	Historic EL Start Date	Historic EL End Date	Overlapping Current Licences
EL0775	Samedan Oil Corporation	1/05/1975	1/05/1977	EL8498, EL6302
EL0776	Samedan Oil Corporation	1/05/1975	1/05/1979	EL8498, EL6482
EL0817	Samedan Oil Corporation	1/09/1975	1/09/1979	EL7345, EL6482
EL0879	Union Corporation (Australia) Pty Limited	1/06/1976	1/06/1977	EL6623
EL0885	Samedan Oil Corporation	1/07/1976	1/07/1978	EL6623, EL6302
EL0886	Samedan Oil Corporation	1/07/1976	1/07/1978	EL8498, EL6482
EL0926	Dampier Mining Company Limited	1/10/1976	1/03/1978	EL6623, EL6302
EL1080	Samedan Oil Corporation	1/01/1978	1/07/1979	EL8498
EL1112	CRA Exploration Pty Limited	1/06/1978	1/09/1980	EL6623
EL2132	CRA Exploration Pty Limited	1/09/1983	1/05/1986	EL6482, EL6302
EL2133	CRA Exploration Pty Limited	1/09/1983	1/05/1986	EL8498, EL6482
EL2176	CRA Exploration Pty Limited	1/02/1984	1/07/1985	EL8498, EL6623
EL2205	Seltrust Mining Corporation Pty Limited	1/03/1984	1/12/1985	EL6623
EL2385	CRA Exploration Pty Limited	1/03/1985	1/12/1985	EL6623, EL6482
EL2887	Norgold Limited (North Ltd)	1/07/1987	1/12/1990	EL6623, EL6302
EL3232	Norgold Limited (North Ltd)	8/12/1988	7/12/1994	EL8498, EL6482
EL3233	Norgold Limited (North Ltd)	1/12/1988	1/09/1993	EL8498, EL6482
EL3234	Norgold Limited (North Ltd)	1/11/1988	1/12/1992	EL8498
EL3235	Norgold Limited (North Ltd)	1/12/1988	1/09/1993	EL6302
EL3244	CRA Exploration Pty Limited	1/01/1989	1/01/1993	EL6623
EL3255	Norgold Limited (North Ltd)	17/01/1989	16/01/1994	ML1659, EL7515
EL3256	Norgold Limited (North Ltd)	17/01/1989	16/01/1995	ML1659, EL7515
EL3404	Peko Exploration Limited (North Ltd)	1/12/1989	1/09/1993	EL6623, EL6482
EL3405	Peko Exploration Limited (North Ltd)	1/12/1989	1/09/1993	EL6482, EL6302
EL4258	Dominion Gold Operations Pty Limited	5/05/1992	4/05/1994	EL6623, EL6302
EL4516	Peko Wallsend Operations Limited (North Ltd)	7/06/1993	6/06/1995	ML1659, EL7515
EL4898	Burdekin Resources NL	31/08/1995	30/08/1997	EL8498, EL6482
EL4899	Burdekin Resources NL	31/08/1995	30/08/1997	EL6623, EL6482
EL5163	Burdekin Resources NL	29/11/1996	28/11/1998	EL6623, EL6302
EL5248	Savage Resources Australia Limited	3/03/1997	2/03/1999	ML1659, EL7515
EL5657	Pasminco Limited	15/12/1999	6/09/2000	EL7515, EL7345
EL5713	Pasminco Limited	14/04/2000	13/04/2002	EL6623
EL5774	Pasminco Ltd, Triako Resources Ltd	6/09/2000	5/09/2002	ML1659, EL7515
EL6116	Resource Management and Development Pty Limited	30/07/2003	23/09/2004	EL8498, EL6623
EL6651	Plentex (Operations) Pty Ltd	20/10/2006	19/10/2008	ML1659, EL7515
EL8087	Ochre Resources Pty Ltd	16/05/2013	11/07/2014	EL8498, EL6482

#### Table 6-10: Manuka Property historic licence summary.

# 6.2.2 Previous exploration

Ownership dates and historic exploration conducted on the Property are summarised in Table 6-11. The main focus for exploration in the area was Cobar-style base metal deposits, although discovery of the Mckinnons deposit in the early 1990's opened up epithermal gold systems as a target type.

Company	Years	Work completed	Results
Samedan Oil Corporation	1975-1979	Airborne magnetics, ground magnetics, mapping, stream sediment sampling, RAB drilling, 1 core drill hole.	No significant mineralisation found, low level Pb anomalism in core drill hole. Licences relinquished.
Dampier Mining Company	1976-1978	Airborne magnetics, ground magnetics, ground gravity.	Magnetic responses from shallow features, no gravity anomalies. Licence relinquished.
CRA Exploration	1978-1985	Airborne magnetics, ground magnetics, mapping, rock chip and magnetic lag sampling, RAB drilling,	No significant mineralisation found. Licences relinquished.
Geopeko/Norgold	1989-1993	Regional stream sediment sampling; RAB, RC and core drilling	Discovery of Pb-Zn mineralisation at Wonawinta (Manuka, EL3255), and Au mineralisation at McKinnons (EL3232), but both prospects failed to meet criteria and were sold.
CRA Exploration (farm-in to Geopeko licences)	1993-1997	Regional lag soil sampling, 409 RAB drill holes; trial IP, EM, gravity, magnetics	Anomaly testing. Geophysics showed lack of physical response of mineralisation
Burdekin Resources Ltd	1995-2000	Resource drilling at McKinnons; Induced Polarisation surveys; regional soil sampling and follow-up drilling.	Open pit mining and processing producing 131,000 oz gold at McKinnons deposit from 1995-2000. Extensive soil sampling in surrounding area identifies anomalies at Goldwing (sub-economic gold), LP-3 (lead) and Gundaroo (silver-lead).
Savage Resources/Pasminco Exploration	1997-2002	46 RC drill holes, 2 core drill holes; gradient-array and dipole-dipole IP.	Conclusion that primary Pb-Zn mineralisation low grade, but Ag in oxide was a target
CBH Resources (formerly Triako Resources Ltd)	2003-2002	11 RC drill holes	Targeted oxide Zn-Ag, sulphide base metal, vein Ag. Patchy mineralisation defined, further drilling recommended.
CCR Ltd	2004-2007	33 RC drill holes (De Nardi and Ridge prospects); soil sampling; geophysics (IP)	Inferred resource at De Nardi Prospect (EL6302) of 1.8 Mt grading 47 g/t for 2.7 Moz silver. Several other prospects defined, not all were followed up.
Plentex Operations	2006-2008	Compilation of previous exploration data, planning	Focus on Smiths Tank as best prospect for sulphide MVT mineralisation.
CCR Ltd	2007- Mar 2014	43 RAB, 37 Aircore, 1,326 RC and 10 core drill holes; VTEM survey; soil sampling; resource-reserve definition; feasibility study; commencement of mining and processing.	Resource/reserve estimates at "Wonawinta prospect" (ML1659, EL6482 & EL7345). Feasibility study indicated economic project. Mining in two open pits, Manuka and Boundary. Total production of 1.1 Mt grading 59 g/t for 2.1 Moz silver. Administrators appointed 9 Mar 2014.
Black Oak Minerals	Sept 2014- Nov 2015	210 RC grade control drill holes within Manuka Pit; exploration data compilation.	BOK purchases Manuka Property in Sept 2014. Mining at Wonawinta restarted in Jan 2015. 745 Koz Ag produced from Manuka and Boundary pits. BOK goes into administration on 27 Nov 2015.

Table 6-11: Summary of previous exploration activities, Manuka Property.

#### 6.2.2.1 Exploration data coverage

Coverage of the different types of exploration data in the Project area are shown as maps in this section. Drilling coverage and types are described in Section 10. Surface geochemistry sample coverage is extensive and includes locations of all stream sediments, rock chips, soils and magnetic lag samples as compiled by BOK in 2015. The entire property area is covered by airborne geophysics (magnetics and radio metrics) acquired by government and historic exploration licence holders. Government surveys vary in resolution from 250 m to 400 m line spacing. Company surveys vary

from 200 m to 400 m line spacing. Gridded gravity data at 500 m resolution is also available, compiled from variably spaced ground gravity observations.

Other geophysical data coverage includes prospect–scale IP surveys at McKinnons, Threemile, Gundaroo, Goldwing and Anomaly 4. Three 200 m line spaced VTEM airborne EM surveys were flown in late 2011 by CCR over Wonawinta/Gundaroo, Goldwing and McKinnons. VTEM surveys include both EM and magnetic response data. A detailed ground gravity survey was also completed by CCR over Gundaroo.

In addition to the data described above, two sets of seismic data are also of interest in terms of regional structural interpretation and prospectivity analysis. Seismic data was acquired along several lines in 1989 across the Cobar Superbasin by the then Bureau of Mineral Resources (now Geoscience Australia). Lines BMR89-C02 and BMR89-C01 transect geology on, or near MRL's licences. Seismic data was also collected along one line in 2008-2009 some 10 km south of the Wonawinta deposit, which extends across the Cobar Superbasin to the east and the Yathong Trough of the Darling Basin to the west.

# 6.2.3 Historic production

# 6.2.3.1 Mining and processing operations - Wonawinta

First ore was mined in April 2012 from shallow open pits (Table 6-12). Treatment was by conventional Carbon-in-Pulp (CIP) methods but without any primary grinding. First silver was poured in July 2012. The project produced a total of 2.1 million ounces of silver up until it was placed in voluntary administration in March 2014 following production issues and high unit costs. Two pits (Manuka and Boundary) were in production when mining was halted early in 2014. A total of some 390,000 tonnes of ore was stockpiled on or close to the ROM pad, with a grade of approximately 88 g/t Ag.

BOK acquired the Wonawinta silver-lead-zinc project in September 2014 for total cash consideration of A\$6.175m comprising \$375,000 for tenements and \$5.8m for rehabilitation bond. The acquisition included the process plant and infrastructure built by Cobar Consolidated Resources (CCR) at a cost of more than A\$60 million with a production capacity of 850,000 tpa.

BOK invested A\$6 million in upgrading the processing facility in late 2014 to early 2015 by installing a larger 1800 kW ball mill and other front-end plant modifications in an attempt to resolve the grinding and recovery issues that had hampered production by the previous operators and to make the plant capable of grinding the ore from BOK's Mt Boppy Gold Mine. BOK expected immediate improvements in effective capacity and reduced operating costs.

Commissioning of the plant and silver production by BOK both began in March 2015. The plant was commissioned on the Wonawinta silver ore whilst the pits at Mt Boppy were cut back to allow for mining and processing of the gold ore later in the year. During the time it operated plant availability of 81% was below expectations primarily due to an electrical generation issue caused by repeated failure of second-hand generator sets purchased to power the mill. Mill throughput averaged 104 t/h versus the planned 130 t/hr. Actual silver recoveries of less than 70% compared to the forecast of 85% attributed to the effect of the unexpected mineralogical ore types encountered and less than optimal plant practices and procedures. Recoveries were less than forecast by the independent metallurgical test work prior to start-up. Reconciled grades were reported as satisfactory. The plant never achieved the target monthly production of 200,000 ounces of silver, although minimal attention was brought to bear to the rectification of the silver performance in the plant as Mt Boppy gold production was imminent.

Mining at Wonawinta was completed ahead of schedule in May 2015 (614,000 tonnes of ore mined at 84g/t Ag). Approximately 350,000 t of the 614,000 t mined silver ore was processed prior to the

transition in September 2015 to gold production from Mt Boppy ore. Silver ore not blended into mill feed during the Mt Boppy gold production campaign was planned to be processed once gold production had concluded. At the end of September 2015 an additional approximate 263,407 tonnes of silver-bearing rock were added to the existing stockpiles on the Manuka ROM pad for potential processing following completion of gold processing of Mount Boppy ore; 13,501 ounces of silver was in circuit at the end of September 2015.

Total silver production since operations commenced in March 2015 to November 2015 was 751,704 ounces (Table 6-13).

		Totals	Total CCR	Total	ВОК
Wonawinta Mining			Jul/12 to Mar/15	Jan/15 to May/15	Mar/15 to Nov/15
Mined material (volume)	BCM	4,433,214	3,655,022	778,192	
Ore Tonnes Mined	Т	1,987,470	1,373,751	613,719	
Grade Mined	g/t Ag	91	94	84	
Wonawinta Processing					
Leach feed	Т	1,312,809	927,084		350,243
Grade Processed	g/t Ag	94	93		95
Contained oz	oz Ag	3,604,718	2,839,545		765,173
Tailings grade	g/t Ag	24	23		28
Recovery	%	74%	75%		70%
Contained oz in dore	oz Ag	2,879,308	2,056,668		751,704

#### Table 6-12: Wonawinta mining and silver production, July 2012 to November 2015.

#### Table 6-13: Details of BOK silver production, March 2015 to September 2015.

	Units	Project to date (March 2015 to 30 Sept 2015)
Silver produced	oz Ag	753,634
Silver poured	oz Ag	740,134
Silver sold	oz Ag	730,141
Silver revenue	A\$M	15.5
C1 Cash Costs	A\$/oz	15.92
Dore contained Ag	OZ	0
Ag stock in circuit	OZ	13,501
Ore for immediate milling	t	263,407

## 6.2.3.2 Mining operations

Open pit mining by CCR was based on conventional open pit methods with 50 t scrapers, small hydraulic excavators, and 90 t dump trucks. Waste was hauled to dumps or backfilled to mined-out voids in the pits. Mining was undertaken by contractors with CCR providing technical services.

The initial mine plan considered extraction of ore from five pits located along about 4 km of strike with average depths of 40 m. Planned overall waste:ore stripping ratio was 6.3:1. Material was assumed to be free digging from geotechnical assessment. Grade control initially sampled drill cuttings from an open-hole blast rig, but from 2014 onwards, close-spaced (10 m) RC drill holes were used.

BOK mined the deposit in 2015 using conventional truck (85 t) and hydraulic excavator (120 t) selective mining. The mining fleet was rented on a dry hire basis with the equipment operated by BOK employees. Efficiencies including a change to in-pit waste dumping resulted in accelerated volume movement and completion of mining at the Manuka pit in early May 2015. Mining cost was quoted as \$3.97/t.

# 6.2.4 Historic resource and reserve estimates

All mineral resources reported in this section are provided for informational purposes only and are superseded by the current Mineral Resource estimate contained in Section 14 of this report. Historic Resource and Reserve figures presented are estimates of the tonnage, grade and contained metal of the deposit that are not verified as current mineral resources, or ore reserves, and which were prepared before Manuka entered into an agreement to acquire an interest in the Property.

A resource estimate was announced by CCR on 10 October 2006 for the De Nardi prospect on EL 6302. An Inferred resource of 1.8 Mt grading 47.1 g/t Ag for 2.7 Moz contained silver was estimated, reported using a cut-off grade of 10 g/t Ag. MA notes that this resource was not included in any further announcements or resource inventories released by CCR after 2008.

Several resource estimates for mineralisation in the southern part of the Property (called Wonawinta in CCR reports) have been publicly released since 2008. All were reported according to guidelines of the relevant JORC Code (JORC 2004 for pre-2013 resources and JORC 2012 thereafter).

The maiden resource estimate for Wonawinta was released by CCR on 22 July 2008 (Table 6-14) comprising 6.5 Mt grading 97 g/t Ag, 1.3% Pb for 20.3 Moz silver and 87,000 t lead.

Resources were reported using a \$/t 'cut-off factor' based on the value of recovered silver and lead assuming recoveries of 85% and 39% and prices of A\$18.70/oz and A\$1,800/t respectively. Assumed 'realisation costs' were included, but it is not clear from the ASX announcement how these were derived. MA notes that under JORC (2012) guidelines resources could not be reported in this manner because the use of a \$/t cut-off factor implies that an in-situ value was estimated without detailed mining studies. Using the formula provided by CCR in their announcement the cut-off factor of \$27/t is equivalent to a silver grade of 68 g/t with no lead credits.

Cut-off factor	Tonnes	Gr	ade	<b>Contained Metal</b>		
	Tonnes	Ag	Pb	Ag	Pb	
\$/t	Mt	g/t	%	Moz	,000 t	
10	18.1	54	0.9	31.4	165	
15	13.6	65	1.0	28.5	140	
20	9.3	81	1.2	24.2	107	
25	7.1	93	1.3	21.2	92	
27	6.5	97	1.3	20.3	87	
30	5.4	107	1.4	18.4	73	

Table 6-14: CCR 22 July	2008 mineral resource estimate (all inferred, 86% oxide material).
TUDIC O 14. CON LL JUI	2000 milleral resource estimate (an interrea, oos okide material).

CCR released a further four mineral resource updates between 19 August 2009 and 25 March 2010, with incremental changes due to additional infill drilling and variations in estimation methodology and cut-off grade. These estimates are not discussed further here since their inclusion is not material to the project.

On 30 April 2010 CCR reported a maiden ore reserve estimate (Table 6-15). Resources were reported at a cut-off of 22 g/t Ag and were inclusive of ore reserves. Reserves were reported at a cut-off of 32 g/t silver equivalent, using a silver price of A\$14.67/oz and a lead price of A\$1,323/t.

	Tonnes	Grade		Contained Metal	
Classification	Tonnes	Ag	Pb	Ag	Pb
	Mt	g/t	%	Moz	,000 t
Indicated Resources	11.3	78.7	1.14	28.6	129
Inferred Resources	10.6	64.6	0.78	22.0	83
Total	21.9	71.8	0.97	50.6	212
Probable Reserves	4.6	97	1.4	14.3	64

Table 6-15: CCR 30 April 2010 mineral resource and ore reserve estimate.

Resources and reserves were again updated in November 2011 (mineral resources) and January 2012 (ore reserves) following grade control RC drilling in the Manuka and Boundary pit areas (Table 6-16). The same cut-offs as used in April 2010 were applied.

	Tonnes	Grac	le	Contained Metal		
Classification	Tonnes	Ag	Pb	Ag	Pb	
	Mt	g/t	%	Moz	,000 t	
Indicated	16.6	66.3	0.9	35.3	145	
Inferred	9.1	57.6	0.7	16.8	61	
Total	25.7	63.2	0.8	52.2	207	
Probable Reserves	10.1	80	1.1	25.9	107	

 Table 6-16: CCR 8 November 2011 mineral resource estimate.

Mining of ore commenced in the Boundary pit on 2 April 2012, with the first silver pour on 28 May 2012. Resources and reserves were updated in February 2014 (Table 6-17), using a 22 g/t silver cutoff grade as before. In contrast to previous models that used ordinary kriging (OK), multiple indicator kriging (MIK) was used in attempt to better reconcile with mining grades. Tonnage increased but grade decreased compared with the November 2011 estimate. Inferred tonnage increase was mainly due to extending the model further. Ore reserves also decreased due to lower silver price (A\$30/oz to A\$22/oz), mining depletion and change to MIK estimation.

Table 6-17: CCR 21 February 2014 mine	ral resource and ore reserve estimate.
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	Tonnes	Grade		<b>Contained Metal</b>	
Classification	Tonnes	Ag	Pb	Ag	Pb
	Mt	g/t	%	Moz	,000 t
Measured Resources	4.2	58	0.8	7.9	33
Indicated Resources	5.9	54	0.8	10.1	46
Inferred Resources	31.4	42	0.4	41.9	135
Total	41.5	45	0.5	59.9	214
Proven Reserves	1.8	81	1.0	4.6	18
Probable Reserves	1.7	72	1.7	3.9	16
Total	3.4	76	0.9	8.5	34

After purchasing the Property in September 2014, BOK undertook shallow infill RC grade control drilling in Manuka pit (the only ore source they intended to mine) and released an updated resource and reserve statement in July 2015. MIK was used to estimate resources, which were reported at a cut-off grade of 50 g/t Ag, considered to be a more realistic figure considering the silver price and associated processing costs at the time. Lead was not included in reporting.

	Tonnes	Grade		Contained Metal	
Classification	Tonnes	Ag	Pb	Ag	Pb
	Mt	g/t	%	Moz	,000 t
Indicated Resources	1.1	81		2.9	-
Inferred Resources	1.5	75		3.5	-
Total	2.6	78		6.4	-
Proven Reserves	-	-	-	-	-
Probable Reserves	0.4	84		1.0	-
Total	0.4	84		1.0	-

Table 6-18: BOK July 2015 mineral resource and ore reserve estimate.

No further resource/reserve estimates were reported from the Property prior to BOK entering administration in late November 2015.

# 7 GEOLOGICAL SETTING AND MINERALISATION

# 7.1 REGIONAL GEOLOGY

The Cobar Superbasin is located in central-west New South Wales about 700 km northwest of Sydney. The basin is one of several intracratonic half-grabens developed during the Late Silurian and Early Devonian in the Central Lachlan Orogen and inverted by combined thick and thin-skinned tectonics. It underwent two deformation phases: the Late Devonian Tabberaberran Orogeny and the Middle Carboniferous Kanimblan Orogeny (Scheibner, 1989; Glen, 1992).

Basin development is interpreted as a half-graben system containing deep-water troughs surrounded by shallow-water flanking shelves. The northern part of the basin (Cobar Trough) comprises dominantly siliciclastic sedimentary sequences (up to 9 km thick) with minor limestone and felsic volcanic rocks. The southern part (Mt Hope and Rast Troughs) comprises sediments, volcaniclastics, volcanic rocks, granites and minor limestone. At the eastern margin of the basin, a narrow rift belt known as the Canbelego-Mineral Hill Rift is dominated by felsic and intermediate volcanics with subordinate interfingered siliciclastic sediments that are both part of the Kopyje Group.

Deformation of the basin was characterised by transtensional to transpressional thin-skin tectonics, locally involving the basement. On the edges of deep-water troughs, Silurian age granites behaved as tectonic buttresses controlling basin opening and inversion. The basin opened in a half-graben setting by NE-SW transtension and was closed by NW transpression. The overall structural style of the Cobar Superbasin is NW-SE folding overprinted by NE-SW trending and NNW-trending oblique left-lateral reverse faulting.

Regional stratigraphic relationships across the southern Cobar Superbasin including Wonawinta and the Canbelego-Mineral Hill Rift are shown schematically in Figure 7-2. Ages of various lithologic units and deformation events are now well constrained from radiometric dating of igneous-volcanic rocks and fossil assemblages in sedimentary units. Ordovician age 'basement' rocks of the Wagga Group and Girilambone Group were deformed and metamorphosed during the Benambran Orogeny in early to middle Silurian time. Late to post-tectonic granites included the Koetong Supersuite (Thule Granite) and Nymagee Igneous Complex.

Sedimentation on the western side of the basin where Wonawinta is located was controlled by the Blue Mountain and Thule faults and was dominantly shelf facies siliclastics and carbonates. The Coonara Fault is interpreted as the main controlling structure to the volcanic dominated Canbelego-Mineral Hill Rift.

Rapid basin inversion occurred during the mid-Devonian age Tabberaberran Orogeny and is considered to be linked to formation of most mineral deposits in the Cobar Superbasin. After basin inversion, thermal subsidence occurred during the middle to late Devonian, depositing Mulga Downs Group clastic sediments in a sag basin (known as the Darling Basin) to the west of the Cobar Superbasin.

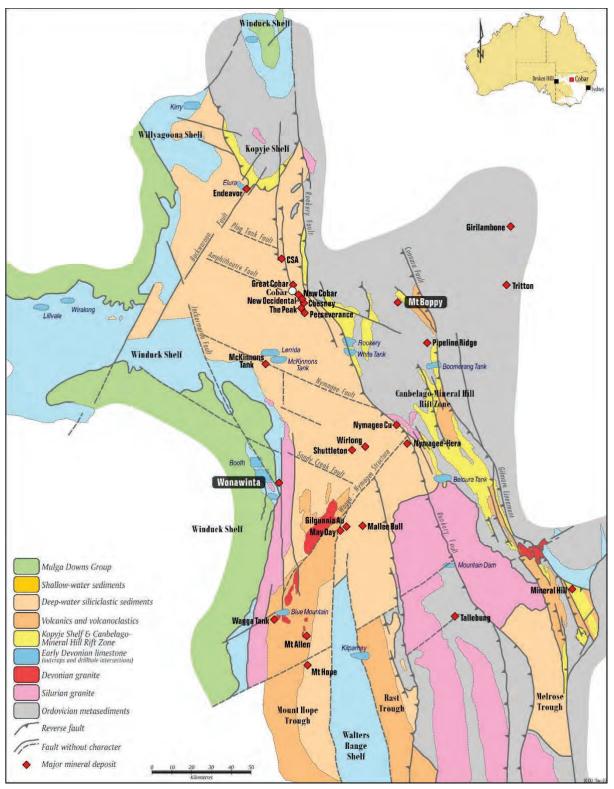


Figure 7-1: Cobar Superbasin regional geological map and major mineral deposits.

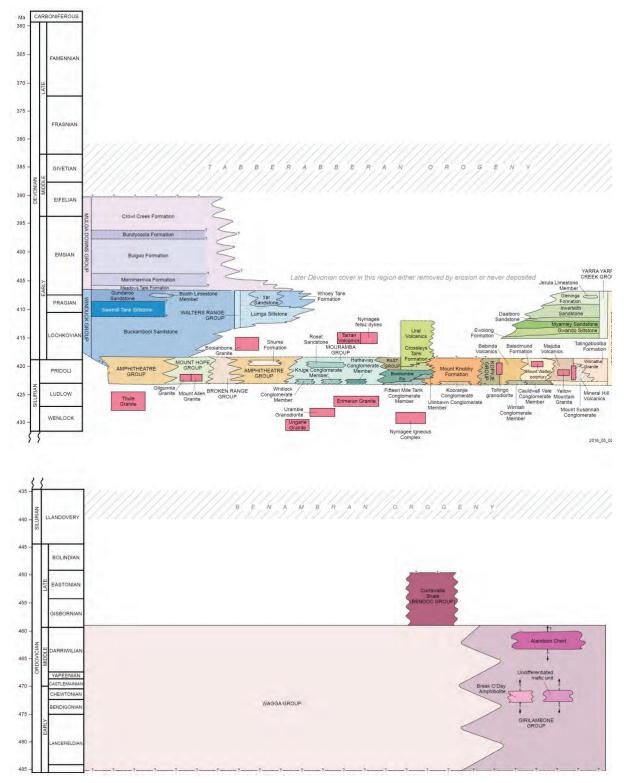


Figure 7-2: Space-time plot for southern part of Cobar Superbasin. Note Florida Volcanics at Mt Boppy are part of Kopyje Group (Downes, et al., 2016)

# **7.2 MT BOPPY**

# 7.2.1 Local geology

Mount Boppy is located on the eastern side of the Cobar Superbasin within the northern tip of the Canbelego-Mineral Hill Rift Zone (Figure 7-1). The rift zone extends for a total length of about 200 km in a SSE direction and varies in width from 1 km to about 10 km. Rift fill comprises dominantly early Devonian age siliciclastic rocks of the Baledmund Formation intercalated with various volcanic units deposited on early-mid Ordovician Girilambone Group meta-sediments.

In the area covered by EL5842 the Canbelego Rift is 1 km to 3 km wide, thinning to the south. The rift margins are marked by faults (Figure 7-3): the western side is the Burra Fault and the eastern side the Coonara Fault. Both faults are subvertical at surface, with the Coonara Fault interpreted by David (2005) as the major bounding structure to the rift.

The area is largely underlain by rhyodacitic crystal and crystal lithic tuffs of the Florida Volcanics. Weakly flow banded rhyolitic and rhyodacitic lava rocks are also present, as is minor siltstone. Small intrusive quartz feldspar porphyries were also mapped at two localities and are assumed to be contemporaneous with volcanics. Thin basal lithologies of Baledmund Formation occur along the NW-trending western margin of the rift in the area of the Mt Boppy mine (Figure 7-3). These comprise fine grained micaceous sandstone, siltstone, limestone, limey siltstone and conglomerate.

Girilambone Group in the project area comprises distinctive, often highly crenulated, metamorphosed shales, siltstones, laminated quartz arenite and phyllite with occasional quartz stringers and tension gash veins. These rocks are predominantly found in the north of the project area, with more arenaceous sections forming low hills east of the Nymagee Road and at the Birthday Mine.

# 7.2.2 Structure

Apart from the major rift bounding faults, the main structural feature is a large NNW-trending deformation zone known as the Central Structural Zone (CSZ), which runs up the centre of the rift basin from Pipeline Ridge to east of Mt Boppy mine (Figure 7-3). The CSZ is characterised by zones of alteration, silicification and mineralisation along about 6 km of its strike length. The most prominent mineralised zones appear to be located at the intersection of this major structure with inferred NW trending faults.

Localised NNW trending shearing was observed in the field. Milky to translucent quartz veining occurs at several localities and generally trends NW-SE. Rock chip sampling of veins shows that most are barren, however their presence indicates tensional zones that likely developed in response to E-W oriented stress regimes during basin inversion.

Historical mapping around the Mt Boppy Gold Mine area identified several N and NW trending structures. The most significant of these occur on the western side of the Mt Boppy fold closure, south of Birthday mine and between the Wealth of Nations and Newhaven shafts. Structures such as these are considered to be the principal conduits for mineralising fluids in the area. Mineralised veins are subsequently formed in dilatant zones along the faults or in related proximal zones such as fold closures. The Mt Boppy mine is hosted within a tight south plunging syncline in siltstone, and the Anticline and Boppy Mountain prospects are similarly located in fold hinges.

# 7.2.3 Alteration and mineralisation

Mineralisation occurs within Ordovician Girilambone Group and Devonian aged rocks of the Baledmund Fm and Florida Volcanics (Figure 7-3). The Girilambone Group hosts the Restdown goldfield in which several deep shafts and numerous pits are found. Historical mining focused on 0.5 m-1.0 m wide quartz+limonite±hematite±magnetite veins or vein-breccias, which are gold- and

zinc-mineralised. Mineralisation hosted in Devonian rocks is characterised by a variety of gold and base metal occurrences, usually hosted in shear zones between rocks of contrasting competency (e.g., tuff and siltstone or tuff and massive rhyolite). The best examples of this style are located at the Pipeline Ridge and Glens Hill Prospects (David, 2005).

Several zones of alteration and mineralisation are situated along the CSZ and occur as zones of silicification, quartz-sericite and/or chlorite alteration and/or weak pyrite-chalcopyrite-sphalerite-galena mineralisation. Prominent among these zones is the alteration at Geweroo, C2A and Native Dog prospects. Localised smaller zones occur as silicification ± quartz veining, located where inferred NW trending structures intersect NNW features on the ground. Strong quartz-sericite-pyrite alteration was also noted at several prospects including South Mt Boppy Gold Mine and the Birthday Mine.

# 7.2.4 Mt Boppy Gold Mine geology and mineralisation

Mt Boppy mine lies within a narrow fault-bounded sliver of Baledmund Formation siltstone that projects northwards into Girilambone Group metasediments (Figure 7-3, Figure 7-4). The eastern contact is interpreted as a steeply (80°) west-dipping normal (west-block down) fault that strikes roughly north-south. The western contact is also faulted by a steeply east dipping interpreted strike-slip fault.

The geometry of mineralisation shows two main zones – Main (east) and west lodes parallel to faulted contacts that converge and intersect at depth, with the intersection plunging about 20° south. Between the faults several minor lodes are steeply dipping and arranged in an en-echelon pattern.

At the intersection of the two lodes/faults at depth the Main Lode becomes sub horizontal, which was interpreted as vein fill within a syncline 'saddle-reef' type geometry. Later work has questioned this interpretation, largely due to the lack of evidence for tight folding or a change in fold vergence across Baledmund Formation rocks in the pit.

Main Lode mineralisation is developed as quartz veining, quartz fill breccia and wall rock silicification parallel to the faulted eastern contact of Baledmund and Girilambone rocks. Thickness of the lode mined underground varied considerably, from 1.5 m to 10 m.

The West Lode has a width of about 1 m to 2 m and is largely fault breccia comprising fragments of phyllite, sericitic siltstone and quartz. Gold grades within the West Lode are best developed in the area south of, and near its intersection with, the Main Lode.

Mineralogy of the lodes comprises quartz, pyrite and locally abundant sphalerite and galena. The presence of chalcedonic silica in some parts has led to speculation that Mt Boppy formed as a high-level epithermal style deposit (Corbett G. , 2005), although other evidence indicates a structurally controlled mesothermal/orogenic gold model is more apt.

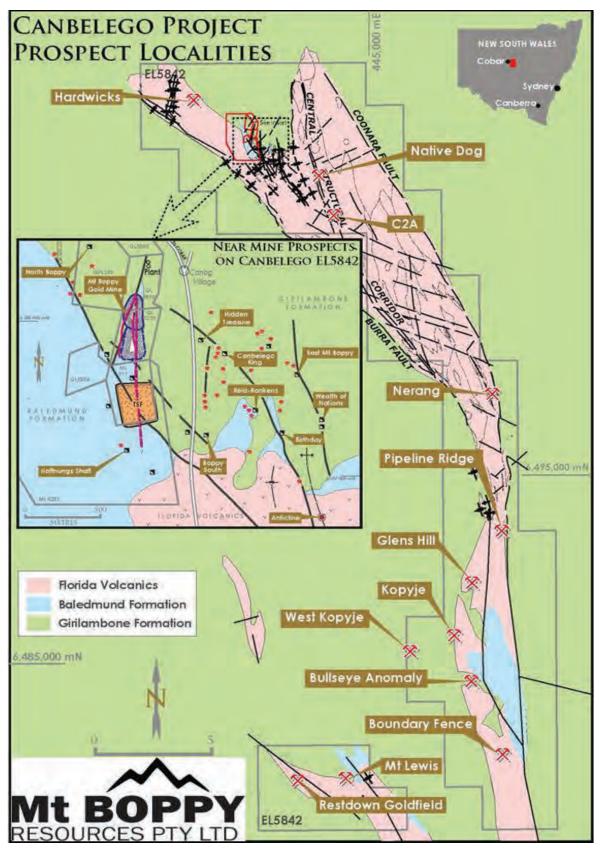


Figure 7-3: Local geology, Mt Boppy Property.

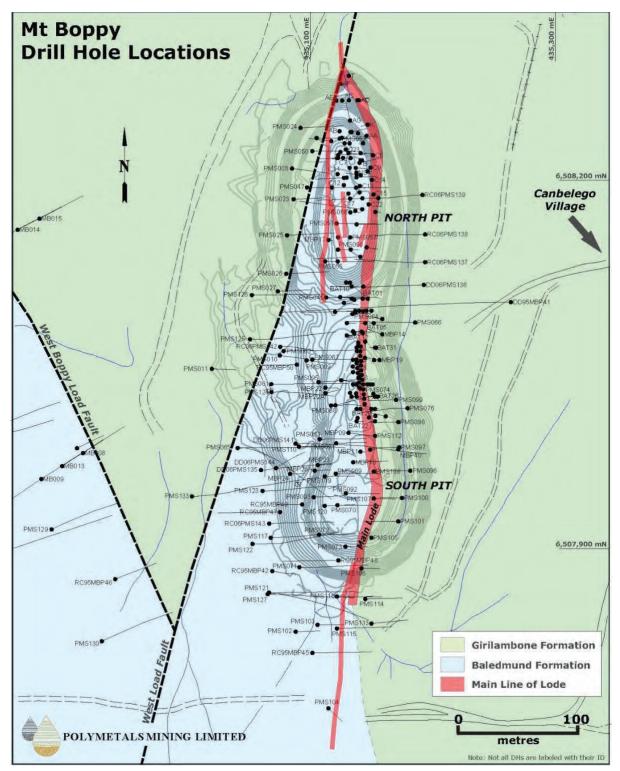


Figure 7-4: Mount Boppy Gold Mine geology.

# 7.3 MANUKA

# 7.3.1 Local geology

The Manuka Property lies on the western margin of the Cobar Superbasin within a tectonostratigraphic unit known as the Winduck Shelf (Figure 7-1). Stratigraphy in the local area comprises early Devonian age shallow water sediments of the Winduck Group, which unconformably overlie Silurian age Thule Granite and Ordovician age metasediments (Figure 7-5). An erosional surface marks the contact between Winduck Group shelf facies sediments and overlying late Devonian fluviatile facies sandstones and conglomerates of the Mulga Downs Group.

Mulga Downs Group sediments thicken to the west of Manuka within a north-south trending trough (Yathong Trough) that lies on the eastern margin of the mid-late Devonian age Darling Basin (Figure 7-6). Seismic data shows the Yathong Trough contains approximately 6 km of sediments at its deepest point (Carr, et al., 2012). The northern part of the Project area is underlain by sedimentary rocks of the Lower and Upper Amphitheatre Group (Figure 9-3).

# 7.3.2 Structure

Stratigraphy in the licence area has been disrupted by three sets of structures and at least one episode of folding.

# 7.3.2.1 NNW trending structures and folding

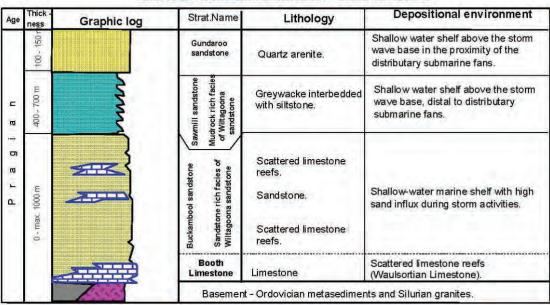
Several NNW trending west dipping thrust faults that coalesce at depth to a flat decollement comprise the Jackermaroo Fault System, including the Jackermaroo and Smiths Tank Faults. The Jackermaroo Fault System is oriented parallel to the eastern margin of the Cobar Superbasin and has been interpreted by some workers to mark the basin's western margin (Glen, 1994).

NNW trending gently plunging east verging open folds with steeply dipping eastern limbs and more gently dipping western limbs are related mainly to reverse (west side up) movement on NNW trending faults. The Wonawinta and Smiths Tank Anticlines and the Buckambool Syncline are the main fold structures present.

A recent seismic line 10 km south of Manuka clearly shows the Smiths Tank Fault and possibly the Jackermaroo Fault as west-dipping listric normal faults reactivated as reverse faults during inversion of the Darling/Cobar Superbasins.

## 7.3.2.2 Blue Mountain Fault Zone

The Blue Mountain Fault (BMF) trends N to NNE, dips east at 45° and truncates NNW trending thrust faults. Seismic data to the south of Manuka clearly shows the BMF extending to a depth of more than 10 km. This brittle structure is marked in core by a 20 m wide gouge zone (Allan, 1992) and thrusts Silurian Thule Granite over the Winduck Group resulting in local overturning of Winduck Group sediments along the eastern limb of the Buckambool Syncline.



SUMMARY GEOLOGICAL COLUMN - WINDUCK SHELF

Figure 7-5: Summary stratigraphic column, Winduck Shelf.

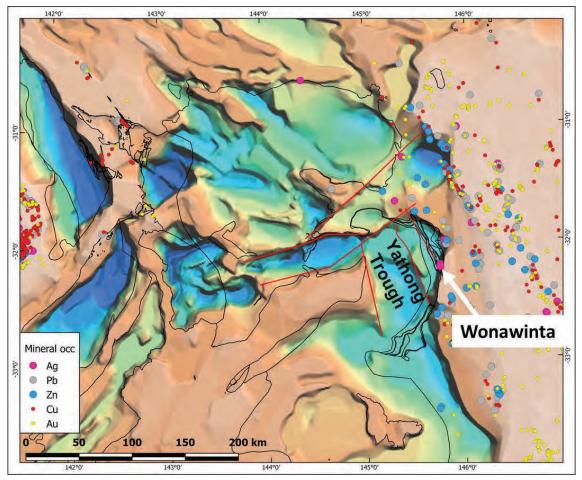


Figure 7-6: Location of Wonawinta on margin of Yathong trough (Darling Basin). Source: Geoscience Australia SEEbase showing depth to basement and NSW mineral occurrences.

# 7.3.3 Wonawinta geology

The following description of project area geology focusses on the Wonawinta deposits and associated prospects. Figure 7-7 shows outcrop geology from NSW Geological Survey 1:100 000 scale mapping overlain with major structures and the location of the Wonawinta deposit open pits. Local stratigraphy with descriptions of rock types and interpreted depositional environments is shown in Figure 7-8. Sandstones and siltstones of the upper part of the Winduck Group and lower Mulga Downs Group form hills and ridges, whereas lower Winduck Group calcareous sediments are generally recessive and covered by a thin veneer of alluvial and colluvial sediments.

The Wonawinta silver-lead-zinc project area lies mostly on the western, gently dipping (<30°) limb of the Wonawinta Anticline. Inliers of Silurian-age Thule granite are exposed in the core of the anticline, which developed due to reverse movement on the Wonawinta Fault.

# 7.3.4 Wonawinta Stratigraphy

The Wonawinta deposit area is hosted by lower Winduck Group sedimentary rocks and basement of Silurian-aged Thule granite. Local stratigraphy is shown in Figure 7-8 and more detailed descriptions are given in David (2005).

## 7.3.4.1 Regolith units

The Cobar district is characterised by deep weathering and the base of oxidation can reach depths exceeding 70 m in the deposit area, particularly in the mineralised zone above the Booth Limestone (Figure 7-8). Regolith units identified in resource drilling are summarised below.

## 7.3.4.2 Soils

Ferruginous brown clayey soils and subsoils generally less than 50 cm thick are best developed over the Booth Limestone and Transitional units.

## 7.3.4.3 Calcrete and silcrete

Calcrete and silcrete are sporadically developed and generally less than 2 m thick in the resource area with calcrete occurring over the Booth Limestone and silcrete over the Gundaroo Sandstone and Mulga Downs Group.

## 7.3.4.4 Pale clays

Pale clays composed of quartz-kaolinite-illite-muscovite with low variable goethite and hematite contents make up the bulk of the overburden in the mineralised areas. Clays range in colour from white to pale brown to grey with depth. They may be interbedded with fine grained siltstone and contain abundant clay, siltstone and lithic clasts to 15 mm.

These clays are best developed over the upper portions of the Booth Limestone and attain thicknesses up to 70 m in deeply incised strike-parallel embayment's within the Limestone contact. Grey clays in the basal parts of these embayment's commonly grade downwards into dark grey to black unoxidised clays of high plasticity, with up to 25% silver-bearing marcasite. The origin of the clays and the embayment structures is uncertain. The most likely explanation is that the clays represent thick sequences of the Transitional Unit deposited in karst structures.

## 7.3.4.5 Ferruginous clays

Chocolate-brown quartz-dolomite-clay-goethite-pyrolusite clays up to 5 m thick are commonly developed above the Booth Limestone contact but are not present in the embayment structures. The presence of calcium and magnesium in these clays indicates they are derived from the dolomitic limestone.

# 7.3.4.6 Limestone saprock

Limestone saprock (dolomite-quartz-goethite) is highly variable in thickness and degree of oxidation. Thicknesses up to 40 m may occur where abundant ferruginous clay horizons are present within the limestone sequence. Intervals of fresh limestone are also common above the base of complete oxidation.

# 7.3.4.7 Granite saprolite

Weathered Thule Granite has feldspars totally kaolinised to a depth of 20 m, resulting in RC samples comprised of white clay and quartz. Washed samples of the granite saprolite have been misinterpreted as Tertiary sands.

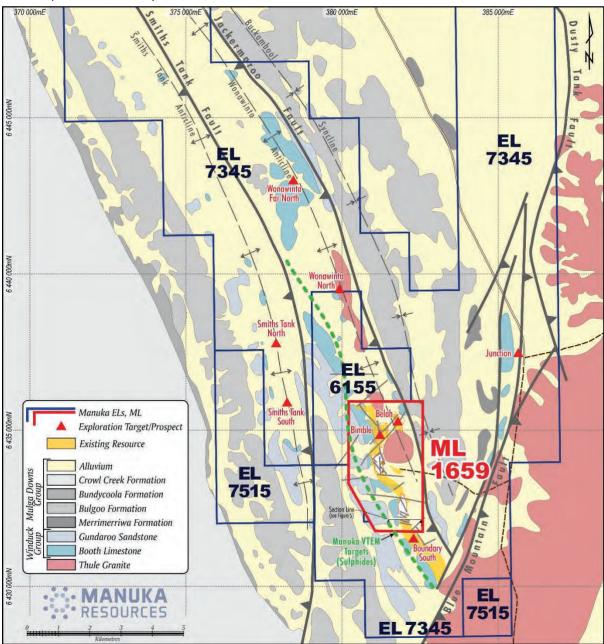


Figure 7-7: Local geology in vicinity of Wonawinta deposits.

DH depth	Graphic log	Minerali sation	Lithology description		Thick- ness	Interpreted depositional environment	Petrograph samples
Om		Zn Pb	Well-laminated bicturbated (Skolithus and Glossifungites) medium-to fine-grained quartz-feldspar-lithic arenite with macrofossils (bivalves and gastropods).	n d a andst		Littoral (beaches) environment with frequent influxes of terrestrial material,	WW1
50 m	~		Very fine grained quartz lithic arenite interbedded with calc areous siltstone, locally dol omitised Quartz-lithic calc arenite with clasts of felsic to intermediate volcanics.	Transitional Unit	30 m	Backreef en vironment with frequent influxes of terrestrial sediments.	
	₹ "		Calcareous shale, rich with microfossils	Trans C	15 H	Protected qui et lagoons or backreef environment.	- WW2 WW3
100 m	*		Floatstone (stromatoporoids, corals, hydrozoans and bryozoans). Biopel micrite Biomicrite Floatstone tor udstone with a black matrix and large fragments of hydrozoas, stromatoporidae and tabular corals. Locally recrystallised and dolomitised. Well-developed stylolites along margins of fossils fragments. (Tryplasma sp.)	ooth Limestone		Carbon ate shelf with restricted water circulation. SMF type 12 Possible forer eef slope Open platfor mreef with lagoonal and backreef environment.	. www www wws
150 m			Récrystallised micrite-biomicrité (calcschist).		15 m	Protect ed qui et lago on	wws
	3		Calcarenite Calcarkose	Transitional arkosel	20 m	Tidal transgression.	ww7 ww9
			Arkose with largefossils fragments.	Ĕ,	12 m	Intratidal	
			Equigranular to porphyritic, coarse- grained, biotite - muscovite granite.	Thule	grani	te	

Figure 7-8: Stratigraphic column for Wonawinta Anticline area.

# 7.3.5 Wonawinta structure

Due to the generally poor outcrop of lower Winduck Group sediments, structural interpretation relies heavily on the amount of drilling, and to some extent, geophysical data. Limited pit mapping was undertaken during mining.

3D modelling of the main geological contacts in the Wonawinta mine area from drilling combined with available geophysics (VTEM and magnetics) was used to gain an understanding of local geological controls on mineralisation. Fault structures can be interpreted from sudden offsets of main stratigraphic contacts and to a lesser extent by apparent vertical offsets of mineralisation.

Modelling of the base of limestone contact also highlights the main Wonawinta Anticline, with exposed Thule Granite basement in its core immediately east of Manuka pit.

The most clearly defined structure on a local scale is a NE-trending fault system to the north of Manuka pit that offsets base and top of limestone contacts with an apparent north side-down movement sense. The fault is interpreted to continue to the east limb of the Wonawinta Anticline, although the offset appears to be reduced.

Another fault offsetting the base of limestone/top of the granite strikes almost east west at approximately 6432800 northing. This structure may be related to one with a similar strike that marks the southern boundary of Manuka pit.

Within the Manuka pit area itself, several sudden changes in mineralisation position potentially mark syn-to post- mineralisation faults. The main structures strike north-south and appear to truncate earlier northwest-trending faults.

## 7.3.6 Wonawinta mineralisation

The main zone of Ag-Pb-Zn mineralisation in the Property occurs along 6 km of strike south of 6435000 mN and parallel with the Wonawinta Anticline hinge. Mineralisation is stratabound within the Booth Limestone Member. Most mineralisation occurs on the western limb of the Wonawinta Anticline close to the fold hinge, but to the north it also occurs on the eastern limb. Two main mineralisation styles are developed; secondary oxide mineralisation and primary sulphide mineralisation (Figure 7-9).

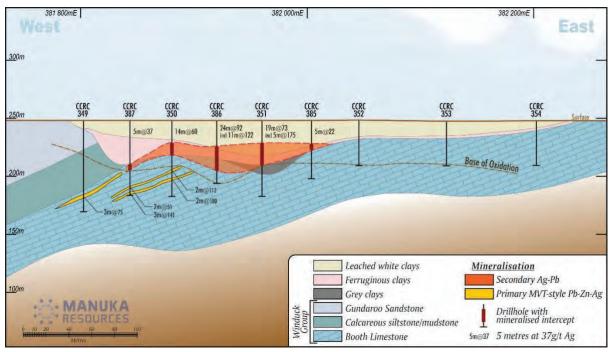


Figure 7-9: Typical cross section through mineralisation, 6431560 mN.

# 7.3.6.1 Oxide Mineralisation

Oxide Ag-Pb-Zn mineralisation is developed as a supergene blanket up to 160 m wide and 30 m thick on and around the contact between Booth Limestone and overlying clays (Figure 7-9). Mineralisation can occur in any of three lithological units:

- In pale clays associated with anglesite (PbSO<sub>4</sub>), plumbojarosite (Pb-Fe sulphate), and minor dolomite, goethite and cerussite (PbCO<sub>3</sub>).
- In brown Fe-Mn clays associated with cerussite, smithsonite (ZnCO<sub>3</sub>), pyrolusite, goethite and minor jarosite, coronadite (Pb-Mn oxide) and marcasite.
- In limestone saprock associated with cerussite, smithsonite, marcasite (FeS<sub>2</sub>) and goethite.

Quantitative XRD mineral analysis indicates that silver is largely contained within goethite (73%), cerussite/anglesite (17%), pyrite (9%) and galena (1%). Typical resource grades for oxide mineralisation are around 100 g/t Ag, 1.1% Pb and 0.5% Zn.

Multi-element geochemical analyses show that Ag-Pb-Zn mineralisation is associated with elevated As (average 0.17%), Hg (average 18 ppm, but up to 100's ppm in some samples) and Sb (average 118 ppm). Silver mineralisation displays a clear Pb-Zn-As-Sb-Hg geochemical association.

# 7.3.6.2 Sulphide Mineralisation

Sulphide mineralisation was not specifically targeted by CCR in their exploration, with most drill holes terminating when fresh rock was reached. The extent of sulphide mineralisation open at depth represents a large potential resource upside at the Property and is a priority drill target within the current mine footprint. Two main styles of sulphide mineralisation are present:

- Disseminated sulphide mineralisation in black clays/black calcareous shale occurring in local embayment's within underlying limestone discontinuously developed along the resource zone. Mineralisation comprises syngenetic pyrite, sphalerite and minor galena (David, 2005). Massive microporous marcasitic pyrite containing fine inclusions of quartz, galena, sphalerite and pyrite can comprise up to 30% of panned concentrates of the black clays in the Manuka area (Pontifex, 2009).
- Sulphides hosted by dolomitic fossiliferous limestone at the top of the Booth Limestone Member. Mineralisation occurs as veins and blobs in recrystallised limestone with black matrix breccias. Mineralogy comprises low-iron sphalerite, galena and pyrite intergrown with calcite. Open space filling and replacement textures are present (David, 2005).

# 8 DEPOSIT TYPES

The Cobar Superbasin is host to the following main types of mineralisation:

- 'Cobar Style' polymetallic (Zn-Pb-Ag-Cu-Au)
- Carbonate-hosted silver-lead-zinc (MVT).
- Low-sulphidation epithermal gold

## 8.1 COBAR-STYLE POLYMETALLIC

Cobar-style polymetallic deposits encompass a class of base and precious metal mineralisation found in the Cobar Superbasin that does not easily fit into standard deposit type models. Metal content varies from Cu-Au (Great Cobar, New Cobar) to Cu-Pb-Zn-Ag (CSA) and Au-Cu-Pb-Zn-Ag (Peak, Hera). Elura (Pb-Zn-Ag) is atypical in terms of metal content but shares the other characteristics of Cobar Style deposits.

Cobar-style deposits are structurally controlled, related to reactivation of syn-depositional faults during basin inversion, and highly discordant to stratigraphy. Morphologically the high-grade deposits develop within major faults and have short strike extents and steep plunges to depth (pipe-like orientations up to 1 km deep). Multiple deposits can develop over large strike extents (+10 km) with world class endowment (Figure 8-1; Table 8-1).

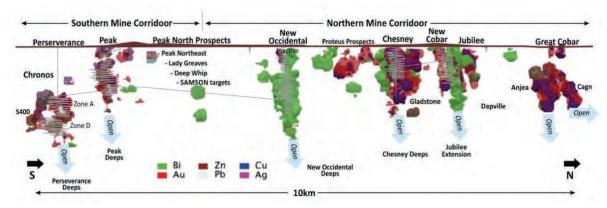


Figure 8-1: Cobar Mine Corridor (Source Peel Mining).

Key characteristics are summarised below (Stegman, 2001) (Fitzherbert, 2019):

- There is recent geochronological evidence to support multiple mineralisation events for Cobar deposit genesis (Fitzherbert, 2019). The new dating records successive pulses of mineralisation between c.414 Ma and 400 Ma followed by basin inversion and renewed mineralisation c.390–384 Ma.
- In addition to metamorphic and meteoric fluids, evidence also indicates potential for VHMS and direct intrusive magmatic component in basinal fluids (Fitzherbert, 2019). Mineralising fluids could also comprise meteoric waters modified by deep seated circulation through basin and basement sequences (Stegman, 2001).
- Interpretation from stable isotopes indicate that early hydrothermal fluids (chlorite alteration) were likely of metamorphic origin.
- Depth of formation is considered to be 5-10km.
- Cobar deposits display syn-deformational characteristics and were developed during Devonian inversion of the Cobar Superbasin. Syngenetic models are not supported by

unequivocal cross cutting relationships and development of the deposits in a variety of structural traps generally associated with steep reverse faults (Stegman, 2001).

- Structural setting is consistent with rapid depressurisation and mixing of hydrothermal fluid during fault valve behaviour. Cobar deposits have strong structural affinities with mesothermal gold deposits like those in the Ballarat Bendigo area of Victoria.
- Stable isotopes and extensive chlorite-carbonate alteration halos are consistent with considerable fluid-rock interaction.
- Metal deposition may have occurred in response to mixing wall rock buffered fluids with later metal bearing fluids. Fluid inclusion data does not support boiling for metal precipitation (absence of vapour-rich inclusions).
- A consistent alteration and mineralisation paragenesis occur in the Cobar deposits. (Stage 0: Fe-chlorite-silicification; 1: Magnetite-trace carbonate; Au-bismuth-selenides; 3: stilpnomelane (bismuthinite); 4: Mg-chlorite-arsenopyrite; 5: chalcopyrite-cubanitepyrrhotite-pyrite-Fe-Chlorite; 6: Mg-rich chlorite-sphalerite-galena-pyrrhotite-pyritecarbonate-talc; 7: pyrite-carbonate.
- Metal zoning may be a function of multiple evolving basin scale hydrothermal fluids and local environment phenomena such as fault geometries and host rock physiochemical characteristics.

Major mineral deposits with associated mineralisation style, tectonostratigraphic settings host lithology and pre-mining deposit size are listed in Table 8-1.

Deposit Name	Tectonic- stratigraphic setting	Mineralisation Style	Host Lithology	Main Commodities	Deposit Size
Elura	Northern Cobar Trough margins (growth fault)	Carbonate hosted base metal	Transition unit - open platform carbonates - deep water turbidite	Zn, Pb, Ag	45Mt@8.6%Zn, 5.5%Pb and 60g/t Ag
CSA	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Cu, Pb, Zn, Ag	51Mt@3.21% Cu, 0.2% Pb, 0.8% Zn and 22g/t Ag
Great Cobar	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Cu, Au	12Mt@1.5g/t Au, 1.9%Cu,
The Peak	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Au, Cu, Pb, Zn	5.2Mt@9.1g/t Au, 0.8% Cu, 1.1% Pb and 1% Zn
New Occidental	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Au (Cu)	5.4Mt@8.8g/t Au, 0.2%Cu
Hera	Cobar Trough	Cobar-style polymetallic	Sediments deposited on the wave base boundary	Au, Cu, Zn, Pb	2.7 Mt@ 4.12g/t Au, 3.67% Pb, 4.86% Zn and 34g/t Ag
Nymagee	Cobar Trough	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Cu	96,000t Cu; 27,000t Pb; 53,000t Zn; 2.2 Moz Ag
Mallee Bull	Cobar Trough	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group and Shume Foundation	Cu (Pb, Zn)	6.76 Mt@ 1.8%Cu, 31g/t Ag, 0.6g/t Au, 0.6%Pb and 0.6%Zn
New Cobar	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Au, Cu	4.1Mt @ 4.6 g/t Au, 0.5%Cu
Chesney	Cobar Trough/ Eastern margins	Cobar-style polymetallic	Turbidite sequence of the Lower Amphitheatre Group	Cu, Au	6Mt @ 0.8g/t Au, 1.9%Cu,
Wonawinta	Winduck Shelf	Carbonate	Booth Limestone	Zn, Pb, Ag	10.8Mt@ 1.5% Zn 1.5%

Table 8-1: Cobar-style polymetallic deposit types (modified by MRL) (David, 2018).

Deposit Name	Tectonic- stratigraphic setting	Mineralisation Style	Host Lithology	Main Commodities	Deposit Size
		hosted (MVT)	(rudstone – poorly washed biosparite)		Pb and 75g/t Ag
Mt Boppy	Mineral Hill Canbelego Rift Zone	Cobar-style polymetallic	Basal unit: conglomerate and sandstone/siltstone	conglomerate and Au, Cu, Pb, Zn	
Mineral Hill	Mineral Hill Canbelego Rift Zone	Cobar-style polymetallic	Ignimbrite, mudstone, rhyolite, siltstone	Au, Cu, Pb, Zn	806,000 t@2.9g/t Au and 1.5%Cu
Nymagee	Cobar Trough/ Eastern margin	Cobar-style polymetallic	Fine-grained sediments deposited	Cu, Pb, Zn (Au)	43,710t of Cu metal produced + resources
Wagga Tank	Mt Hope Trough	Cobar-style polymetallic	Fine-grained distal turbidite with tuff and cherts	Au, Cu, Pb, Zn	1.25Mt@0.66g/t Au, 69g/t Ag, 0.81%Cu, 1.84%Pb and 3.29% Zn
Pipeline Ridge	Mineral Hill Canbelego Rift Zone	Cobar-style polymetallic	Siltstone, tuff, and vitric tuff	Au, Cu, Pb, Zn	2.8Mt@2.4g/t Au (resource)
McKinnons Tank	Winduck Shelf	Epithermal (stockwork)	Sediments deposited on clastic shelf above wave base boundary	Au	2.2Mt@1.91g/t Au
May Day Prospect	Mt Hope Trough	Cobar-style polymetallic	Mudstone, crystal tuff, lithic tuff, felsic volcanics	Au, Cu, Pb, Zn	325,000 t@2.21g/t Au, 15.5g/t Ag, 1.3%Cu and 0.3% Pb
Mt Hope Mine	Mt Hope Trough	Cobar-style polymetallic	Sandstone and siltstone with rhyolite and tuff	Cu (Ag, Au, Pb, Zn)	Produced 10,559 t of Cu metal

# 8.2 CARBONATE-HOSTED AG-PB-ZN

Silver-lead-zinc mineralisation at Wonawinta has been interpreted as an oxidised (supergeneenriched) Mississippi-Valley Type (MVT) deposit. The overall regional geological setting, host rocks and geometry of mineralisation fit this model. There is evidence in fresh samples for lowtemperature marcasite and colloform cavity-fill textures in sphalerite typical of MVT mineralisation. S isotope values indicate a basinal brine sulphur source, with some syn-diagenetic sedimentary pyrite.

High silver grades and presence of significant amounts of mercury, arsenic and antimony are unusual for an MVT deposit. This geochemical association is more similar to Irish-style carbonate hosted mineralisation. Most MVT deposits occur in carbonate platforms on the margins of cratonic sedimentary basins. MVT mineral districts are commonly large, with individual deposits having a median size and grade of 7 Mt at 1.6% Pb, 6% Zn and 32.5 g/t Ag (Leach, Taylor, Fey, Diehl, & Saltus, 2010). Deposits were formed by migration of warm saline aqueous solutions, similar to oilfield brines, through aquifers within platform-carbonate successions towards the basin periphery. Most models relate mineralising fluid migration to compressional tectonics and basin inversion. Reactivated syn-sedimentary faults are involved in creating fluid pathways, although the deposits themselves are stratabound.

## 8.3 EPITHERMAL GOLD

The McKinnons gold deposit represents a low-sulphidation (adularia-sericite) epithermal style of gold mineralisation that is uncommon in the Cobar Superbasin. Low sulphidation deposits form in rift settings and are derived from reduced, near-neutral pH, dilute fluids developed from interaction between deep circulating groundwater and a magmatic heat source (Corbett G. , 2002). Deposits vary widely in size and grade. Depending on the level of erosion of the system and the host rocks, narrow high-grade veins, or lower-grade stockworks develop.

# 9 **EXPLORATION**

No exploration has been carried out on the properties by MRL. Historic exploration activities is summarised in Section 6. MBR drilled 6 holes in the bottom of Mt Boppy Pit in 2016.

# 9.1 MT BOPPY PROPOSED EXPLORATION

Mt Boppy targets for exploration are summarised in Table 9-1 and shown in Figure 9-1. Proposed exploration at Mt Boppy is focused on recognition of the potential large scale structural and hydrothermal systems that control formation of Cobar-style polymetallic deposits. Recent work has shown improved appreciation of different stages of alteration (some barren) and mineralisation phases, significant depth extents down plunge and occurrence of additional deposits along strike.

Exploration will be founded on strong understanding of the structural setting at Mt Boppy (geology and geophysical review) in conjunction with exploration under cover (geochemical bedrock multielement geochemistry, lithogeochemistry and spectral) approach. Integration of these datasets in 3D and adoption of a camp scale approach will be used to prioritise the targets at Mt Boppy and the Central Structural Zone.

Target	Prospect	Description	Proposed work	Licence
Cobar-style polymetallic Au-rich	Mt Boppy Gold Mine Boppy Southern extension, Boppy northern extension	Targeting potential extensions of known gold mineralisation on permitted ML/GL to identify additional gold mineralisation.	Geological, geophysical and structural synthesis and consider further CSAMT geophysics to facilitate structural model interpretation. Undertake RC with Diamond tails and oriented core as required.	GL3255, GL5836, GL5848, GL5898, ML311, ML1681, MPL240
Cobar-style polymetallic Au-rich	Mt Boppy – Canbelego Gold Camp (3x3km) Mt Boppy South, Birthday, Wealth of Nations, Canbelego King, East Mt Boppy Mine, Reid- Rankens)	Brownfields exploration on large (3x3km) known Gold Camp with abundant historical workings and high- grade gold drill intersections. Large alteration footprint interpreted from magnetics.	Geological and structural synthesis of 3x3km Gold Camp with abundant historical workings. Geophysical acquisition: Magnetics, and CSAMT (resistivity to identify potential gold and vein structures). Drilling: Aircore with multielement geochemistry, Spectral analysis. Follow-up RC and oriented diamond drilling (with structural analysis) Review structural-stratigraphic model, target intersections of structure and stratigraphy.	EL5842, GL3255, GL5836, GL5848, GL5898, ML311, ML1681, MPL240
	Central Structural Zone: Florida Volcanics, Birthday prospect, Native Dog Hill, Native Cat, Scrubby Tank, C2A	Multiple targets in known high-strain structural zone with coincident alteration and geophysical targets. Some drilling but deep targets considered untested. Proximity to Mt-Boppy- Canbelego.	Refine geological model, focus on understanding structural setting and paragenesis of alteration (whether it is barren metamorphic or shows evidence of mineralisation events) through application of multielement geochemistry techniques. Consider spectral analysis to facilitate vectoring. Undertake deeper RC with Diamond tails and oriented core as required.	EL5842
Cobar-style polymetallic	Nerang (and Lower North Geweroo) Anomalies	Greenfields target (walk up) of soil geochemistry with Pb, Zn and Cu and no Au or Ag assays. No drilling. Proximal to Central Structural Zone.	Initial follow up with Aircore and bedrock multielement geochemistry traverses.	EL5842
	Other Prospects	Lower Priority Targets	Review and consideration of data coverage and broader structural setting. Application of Aircore and bedrock multielement geochemistry traverses to enable prioritisation.	EL5842

# Table 9-1: Summary of Mt Boppy targets for exploration.

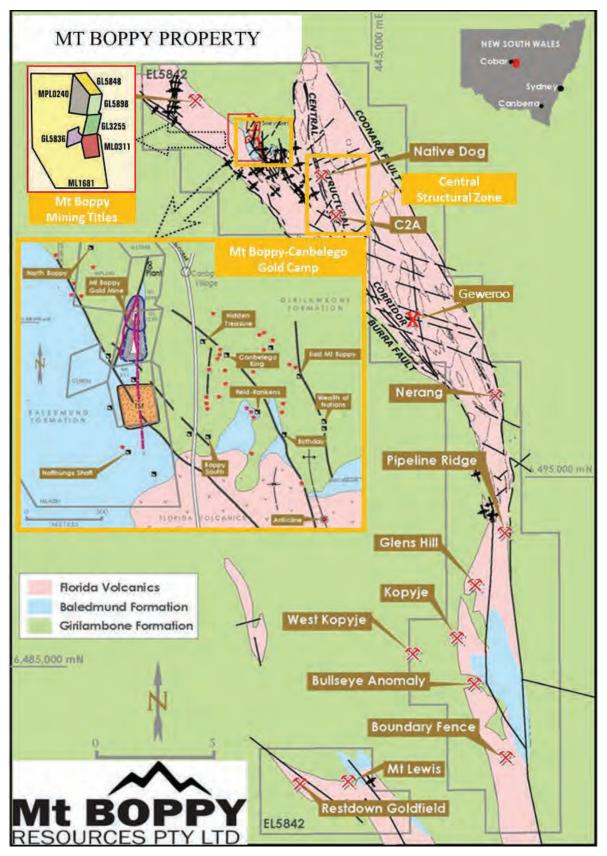


Figure 9-1: Location of prospects discussed in text.

# 9.1.1 Mt Boppy – Canbelego Gold Camp and Mt Boppy Gold Mine

Cobar-style polymetallic deposits are strongly structurally controlled with relatively small surface extents and significant depth extents (up to 1000m). Additional deposits can occur along strike with manifestation of multiple pipe-like deposits. Very little deep drilling has been undertaken at Mt Boppy to test for depth and strike extents. High grade sporadic drill intercepts and multiple historical mines occur in the camp that have not been systematically tested.

Evaluation will focus on the Mt Boppy-Canbelego gold camp (3kmx3km footprint) as a whole, incorporating integration of geology, structural-stratigraphic information geophysics and geochemical datasets to develop a camp scale 3D model for targeting and evaluation. Targets providing potential extension to gold resources on granted Mining title will be prioritised.

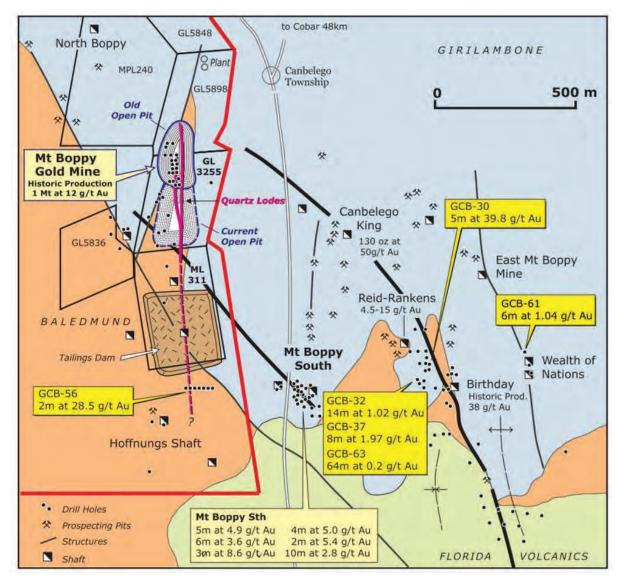


Figure 9-2: Mt Boppy -Canbelego gold camp area.

## 9.2 MANUKA PROPOSED EXPLORATION

Except for near mine sulphide targets at Wonawinta, the majority of exploration prospects can be considered early stage. These targets were largely derived from compilation of existing surface

geochemical data, in particular partial leach soil assays. CCR's airborne VTEM airborne survey in 2011 also highlighted several targets, that in the opinion of CCR and BOK, required follow-up.

MRL are currently reviewing mineralisation models and the structural-stratigraphic framework within the Property to better define existing targets for exploration and determine potential new targets. MRL considers the tenements prospective for a) primary (sulphide) MVT-style zinc-lead-silver and extensions to existing silver oxide resources, b) polymetallic 'Cobar style' and c) epithermal gold. Individual targets are summarised in Table 9-2 and shown in Figure 9-1, and the highest priority ones are described in detail in the following sub-sections. Lower priority targets are not discussed in greater detail at this stage.

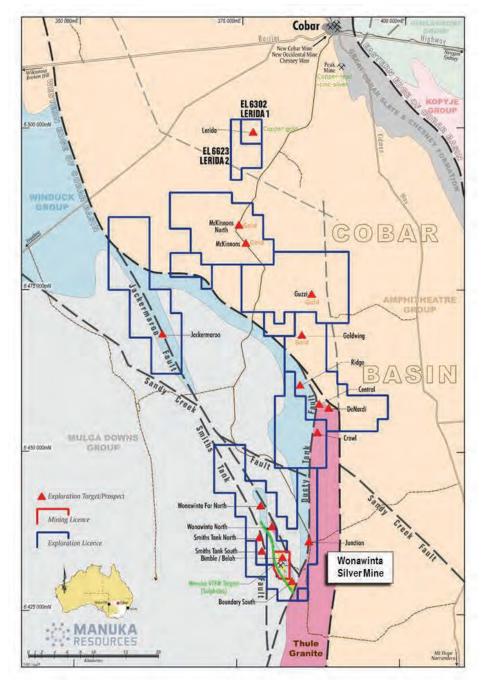


Figure 9-3: Local Geology and location of prospects discussed in text.

Target	Prospect	Description	Proposed work	Licence
Wonawinta style Ag-Pb-Zn	Manuka VTEM anomalies (Ag-Pb-Zn)	Conductive bodies in VTEM data not tested by drilling. Interpreted as potential sulphide mineralisation	Structural-stratigraphic model review, VTEM data review, ground EM survey soil sampling, RC drilling.	EL6155, ML1659, EL7345, EL7515
	Wonawinta Sulphide (Ag-Pb-Zn)	Overlap with VTEM anomalies. Target structurally focussed higher grade Zn-Pb rich sulphide material, particularly in parts of Bimble prospect and down-dip from Wonawinta deposit.	Review structural-stratigraphic model, target intersections of structure and stratigraphy.	ML1659
	Wonawinta North (Zn-Pb-Ag)	4km long zone with zinc-rich, but silver-poor oxide mineralisation intersected in limited drilling. Untested, but generally small silver in soil anomalies.	Refine geological model including structural- stratigraphic synthesis. RC drill testing.	EL6155, EL7345
	Junction	Anomalous Ag-Pb-Zn in two RC drill holes over soil and VTEM anomalies	Follow up soil anomalies and test shallow VTEM anomalies with RC drilling	EL7345
	Smiths Tank Corridor (Ag-Pb-Zn)	Untested soil anomalies, favourable structural position (fold and thrust repeat of Wonawinta stratigraphy), but results to date low grade and patchy mineralisation.	Soil sampling, Aircore, RC drill testing of soil anomalies.	EL7345, EL7515
Epithermal Au	Goldwing (Au)	Deep resistive body possibly related to silicification and Au mineralisation. Review of IP targets and soil geochemistry indicates previous drilling not effective.	Additional soil sampling, structural review and Aircore or RC drill testing if required.	EL6302
	Guzzi (Sb-Ag-Au)	Surficial Antimony anomaly, potential hydrothermal upflow zone, structurally favourable position.	Ground or drone magnetics and EM survey, soil sampling, Aircore, RC-DD drill testing if required.	EL8498
Cobar Style Polymetallic	Lerida (Cu-Au)	Surficial Cu and Au in soils anomaly, favourable co-incident structural intersection position (N and NW striking interpreted structures).	Aircore drill testing, RC follow up if required.	EL6302
Lower Priority Targets				
Epithermal Gold	McKinnons North (Au)	IP anomalies possibly not adequately tested, may be deeper than assumed by CCR. If mineralisation exists at depth, will be high risk.	Re-interpretation of IP and RC drill testing. Review effective exploration coverage and epithermal gold targets.	EL6302
Wonawinta style Ag-Pb-Zn	Gundaroo (De Nardi, Gundaroo Central, The Ridge)	Low grade sandstone hosted base metal mineralisation causing significant soil anomaly. Small silver resource defined at De Nardi uneconomic, Gundaroo Central and The Ridge both low grade. Conceptual drill targets exist, but considered high risk.	Interpretation of VTEM, re- assessment of geology and other geophysics to determine if further work necessary.	EL6302, EL6482
	Crowl	Anomalous Pb-Zn-Ag in single RC drill hole over soil anomaly.	Structural-stratigraphic interpretation. Aircore drilling.	EL6482
	Boundary South	Conductive bodies in VTEM data not tested by drilling. Gaps in soil sample coverage	Soil sampling, RC drill testing.	EL7345
	Jackermaroo	Pb (Zn-Ag) in soil anomaly, favourable structural position on Jackermaroo Fault (extension of main fault trends at Manuka)	Soil sampling and Aircore drill testing.	EL6482

# Table 9-2: Summary of Manuka targets for exploration.

#### 9.2.1 Manuka VTEM anomalies

Interpretation of VTEM data carried out by Moore Geophysics identified priority conductors surrounding the Manuka mine site (Figure 9-4). Conductive bodies occur within Booth Limestone and Gundaroo Sandstone and are interpreted to be argentiferous marcasite-pyrite-galena bearing black shales similar to those exposed in parts of the Boundary pit. Historic drill intersections of some conductors have returned significant silver-lead-zinc mineralisation. Follow-up work proposed by BOK included refining the geological model over the area, soil sampling to west of deposits, and ground EM follow-up of VTEM conductors to better constrain drill targets.

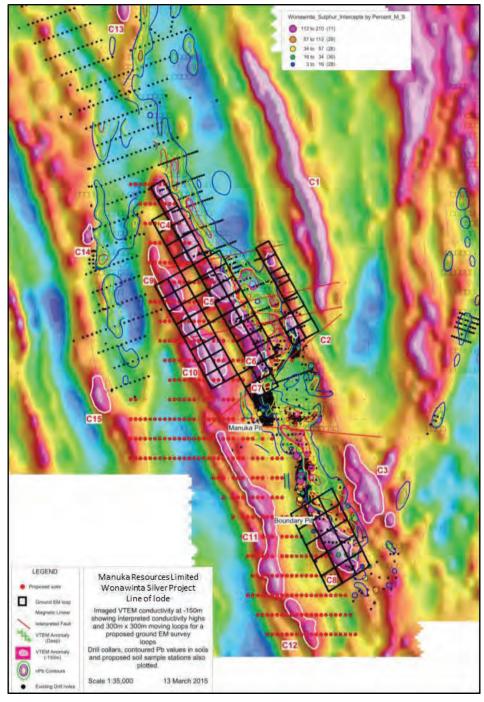


Figure 9-4: Manuka VTEM anomalies. Priority conductive anomalies identified along strike and down dip from pits.

#### 9.2.2 Manuka sulphides

MRL and BOK identified several targets in the Manuka area where drilling has not closed off Zn-rich sulphide potential. The two main targets are at Bimble and the down-dip (westerly) extension of mineralisation from the northern part of the Manuka pit. Bimble is particularly interesting because several drill holes terminate in mineralisation grading >1% Zn, but low in silver. Bimble also lies within a northeast-trending structural corridor defined by offset of stratigraphy interpreted to be due to steep faulting, but all drill holes are vertical and oriented along east-west lines. Primary mineralisation in this area may have a steeply dipping structural control such that vertical drilling has not optimally tested mineralisation here. Proposed work would largely overlap with studies proposed for Manuka VTEM targets, with refining the structural-stratigraphic model seen as the main priority.

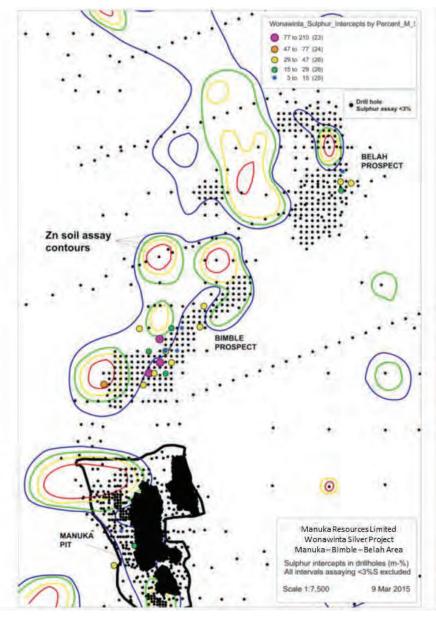


Figure 9-5: Manuka-Bimble area showing zinc in soils contours overlain on drill holes coloured by sulphur assay. High sulphur values in drill holes correspond with Zn > 1%

## 9.2.3 Wonawinta north

This area (Figure 9-6) contains the more distal elements of the Manuka mineralisation. The relevant zone trending NNW is defined by Ag, Pb and Zn soil geochemistry contours. Each of these elements highlights several anomalous zones, which are generally similar, but differ in detail. Of these three elements, Zn contours appear to correlate best with mineralisation identified by drilling.

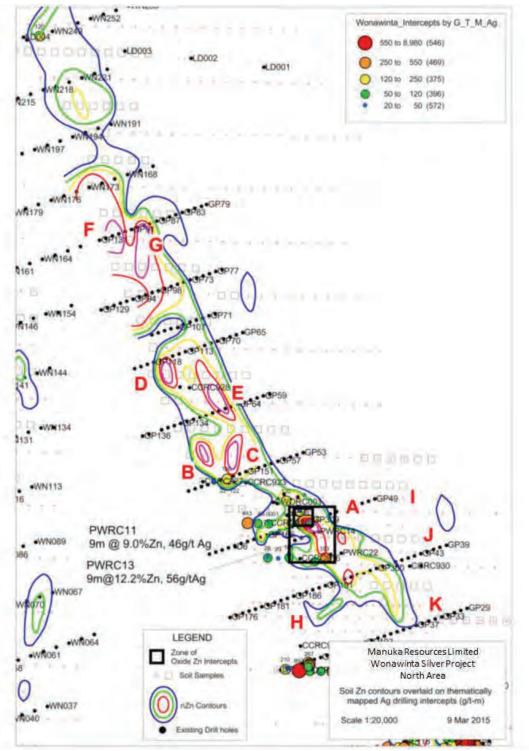


Figure 9-6: Wonawinta north area. Zinc in soil contours overlain on thematically mapped silver in drilling intercepts

Recent drilling in this area is limited, with CCR concentrating its efforts near mine to identify resources within ML1659. RAB drilling in traverses perpendicular to strike shown in Figure 9-6 (black dots) was carried out by Geopeko, and further drilling was undertaken by Savage Resources and Pasminco. Drilling results are thematically mapped and appear in Figure 9-6 as coloured dots, with colours representing the silver content of the relevant drill intercepts. Black dots represent barren holes. Three RC holes drilled by Pasminco all returned high grade zinc values (9-12% Zn) from surface.

Areas of interest have been identified in Figure 9-6 by letters "A" to "K". Zn contours have been used to define anomalous zones denoted "A" to "G" whilst zones "H" to "K", are defined by Ag  $\pm$  Pb anomalism. Proposed work in the area includes re-assessment of the potential for sulphide mineralisation, and follow-up of untested, or poorly tested soil anomalies. Soil anomalies B, C, D, F and G are of most interest and other anomalies will be assessed for drill testing.

## 9.2.4 Goldwing

Goldwing is located 15 km SSE of McKinnons within Amphitheatre Group sedimentary rocks. The prospect was identified by BRL from a partial leach gold in soil anomaly. BRL carried out geological mapping, trenching, RAB drilling, RC drilling and IP surveys from 1995-1999.

BRL intersected weak gold mineralisation in a stockwork of narrow quartz veins in silicified sandstone. BRL's IP survey identified three weakly chargeable zones, but none were followed up by drilling. CCR's VTEM survey identified a NNW trending resistive zone at approximately 150 m depth, which may be due to silicification. Re-processing of soil geochemistry data by CCR/BOK indicates potential for deeper mineralisation NW or SE of the BRL drilling. Proposed activities include geological mapping, review of aeromagnetics and VTEM to discern alteration zones and drilling if a clear target can be identified.

## 9.2.5 Guzzi

Guzzi is located within EL8498 and was defined from recontouring of BRL partial leach soil assay results that produced an antimony anomaly. This was interpreted to represent a zone of hydrothermal activity, possibly the distal expression of a system at depth (>200 m). The lack of any gold anomalism is either further indication of the depth, or that no appreciable gold is present in the target. A Cobar-style polymetallic system is the probable target, rather than epithermal gold such as at McKinnons. Proposed work includes geological mapping, soil sampling, ground or heli-borne magnetics, EM survey and RC drilling if targets can be identified.

## 9.2.6 Lerida

Lerida is in EL6302 and was identified by a multi-element (Sb and Cu) soil anomaly by CCR (Figure 9-7). The anomaly overlies Upper Amphitheatre Group sedimentary rocks and is adjacent to the intersection of interpreted regional scale structures. Cobar-style polymetallic mineralisation is the expected target. Proposed work includes mapping, possible repeat partial leach soil sampling and follow-up Aircore drilling on a 200 m x 200 m grid. Any targets identified by Aircore will be followed up with RC drilling.

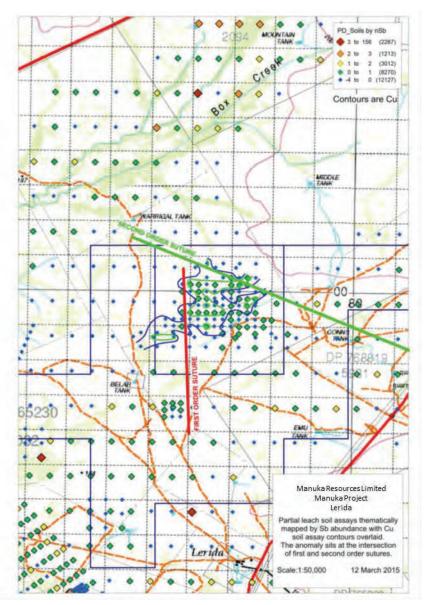


Figure 9-7: Lerida anomaly. coloured points are thematically mapped Sb, with Cu contours overlain.

## 9.2.7 Smiths Tank

Identified parallel and west of the Wonawinta zone, Smiths Tank is a thrust and fold zone that is a repeat of the Wonawinta stratigraphy as interpreted from the seismic profile to the south. Seismic data shows Smiths Tank and Wonawinta Faults dip west towards Darling Basin. Smiths Tank fault extends to approx. 6km depth and Wonawinta fault is interpreted to 9km depth. Previous exploration by CRA and CCR has identified Ag soil anomalies only partially tested by shallow RAB drilling and limited RC drilling. The deeper sulphide potential is untested. Proposed follow-up work will consider structural-stratigraphic targeting, additional soil sampling grids over a wider greenfields area, Aircore drilling and follow-up selective RC drilling.

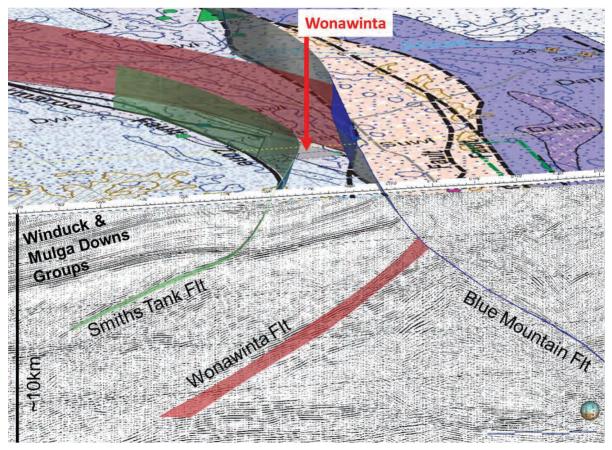


Figure 9-8: Interpreted position of westerly dipping faults with respect to surface geology and seismic at Smiths Tank and Wonawinta.

## **10 DRILLING**

Drilling undertaken by previous owners is summarised in Section 6. Specific drill statistics used in the resource estimates are provided in Section 14.1.2 and Section 14.2.2 for Mt Boppy and Manuka respectively. Drilling undertaken by MRL only occurred at Mt Boppy through its subsidiary MBR.

## **10.1 MT BOPPY**

## 10.1.1 Mt Boppy Resources (MBR)

Drilling was undertaken by MBR in August 2016. Six RC drill holes were completed at the base of the pit for 201m of drilling. The holes were drilled in the central to northern portion of the Mt Boppy open-cut utilising a UDR650 with a DTH face-hammer and 5 <sup>3</sup>/<sub>4</sub>" bit. Rig set-up was checked by the geologist on site with compass and clinometer. Holes were down-hole surveyed with a digital Reflex Camera.

The program was designed to increase the confidence in mineralisation immediately below the pit floor. Drill cuttings were split using a three-tier riffle splitter. Samples were collected at 1m intervals in mineralised zones, recovery was hampered by drilling difficulties encountered in numerous old stopes and voids. The samples were dispatched to the ALS Minerals laboratory in Orange for gold analysis by 50 g fire assay (Au-AA26). Logging and assay data were then validated and appended to the BOK drill hole database. Drilling statistics and details of significant assays are included below as Table 5.

## 10.1.1.1 Outcomes

The program was successful in confirming the continuity of previously known stopes and mineralisation trends. More work will be needed to confirm the geological interpretation seen in historical mine cross sections which show the Main and West lodes join in a synformal (concave-up) keel shape. While this interpretation cannot be ruled out, this zone is complicated by the presence of cross-faulting and the true shape could be more like a broad zone of brecciation/massive quartz veining where the lodes intersect.

## 10.2 MANUKA

No drilling has been completed on the Property by MRL. Most previous drilling on the Property was undertaken by CCR Ltd between 2006 and 2013 in the Wonawinta and Gundaroo areas, and by Burdekin Resources when drilling at McKinnons. Procedures and protocols described in the following sub-sections relate to CCR's drilling programs and are taken from CCR's 2010 Feasibility Study document (CCR, 2010). Raw data relating to many aspects of drilling and drill sampling undertaken by CCR was not available to MA at the time of writing this report. Details of drill sample recovery, reliability and sample analysis are taken from resource estimation reports written by external, independent consultants.

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

## **11.1 MT BOPPY**

MA has not yet been supplied with original data regarding drill sample preparation, analytical QAQC or sample security. Nil (or only very limited) information is currently available for drilling activities prior to BOK acquiring the project in 2011. For BOK's drilling, an assessment of assay methods and assay quality is presented in BOK ASX announcement of 27<sup>th</sup> November 2015

## **11.1.1 Sample security**

Pre-2011 sample security protocols unknown. Representatives of BOK supervised the collection and submission of samples up to the point of transfer to the freight company. Representatives of MBR supervised the collection and submission of samples up to the point of transfer to the freight company for their six-hole RC program in 2016.

## **11.1.2** Sample analyses

BOK considered sampling procedures were of industry standard. The majority of samples were analysed by 50 g fire assay with AAS finish. The quality control data routinely submitted as part of the exploration programs include certified standards and duplicate data. Analysis of the duplicate and standards data indicates assaying is within industry acceptable limits of precision and accuracy. The blank samples do not display evidence for significant contamination. In addition, internal laboratory standards and duplicates were reviewed and also are within industry acceptable limits of accuracy. A check assay program also adequately reproduced the original assays. Assessments indicate that appropriate levels of analytical precision and accuracy have been achieved, and the data is considered appropriate for use in resource estimation. MAAS followed BOK drilling and sampling procedures.

## 11.1.2.1 Laboratory preparation and analysis procedures

## 11.1.2.1.1 Drying

Generally, samples are received in calico bags in a relatively dry state. Excessively wet samples are laid in a tray and dried at 105 to 120°C for 12 hours and re-bagged into new bags if necessary.

## 11.1.2.1.2 Crushing

Samples that were too coarse to be put directly into a large pulverising mill, or where the particle size needed to be reduced prior to taking a representative split for further pulverisation, were crushed using a jaw and/or fine jaw crusher. This process was only necessary for the relatively small number of diamond core samples from the Mt Boppy gold project. No crushing at the lab was required for the 2016 RC drill program.

## 11.1.2.1.3 Splitting sub-samples

Samples that were too large to be placed directly into a large pulverising mill (i.e. >3 kg) were split prior to pulverising.

## 11.1.2.1.4 Pulverisation

Approximately 3 kg of material was pulverised using 'flying disk' or 'ring and puck' style grinding mills. Pulverising procedures at ALS guaranteed that for most sample types, at least 85% of the material was pulverised to 75 micron (200 Mesh). Data on the percentage of pulverised material passing 75 micron was provided for every 20th sample in the sample data sheets. Approximately

200 g of pulverised material was scooped from the mill to generate a 'master package' for analysis. The remaining material was bagged and retained.

## 11.1.2.1.5 Sample analysis

Routine analysis of pulverised samples was by 50 g fire assay with AAS finish. Some grade control samples were analysed by 200 g bottle roll leach with AAS finish.

## 11.1.3 Quality Control

Quality Assurance ("QA") concerns the establishment of measurement systems and procedures to provide adequate confidence that quality is adhered to. Quality Control ("QC") is one aspect of QA and refers to the use of control checks of the measurements to ensure the systems are working as planned.

The QC terms commonly used to discuss geochemical data are:

- Precision: how close the assay result is to that of a repeat or duplicate of the same sample, i.e. the reproducibility of assay results.
- Accuracy: how close the assay result is to the expected result (of a certified standard).
- Bias: the amount by which the analysis varies from the correct result.

QAQC results for the 2011 and 2016 drilling (duplicates, blanks, CRM's, umpire assays) indicate no significant bias or lack of precision.

The laboratory QAQC protocols include duplicate and repeat analysis of pulp samples, screen tests (% passing 75  $\mu$ m) as well as regular reporting of laboratory standards.

## 11.1.3.1 2016 QAQC

MBR drilled 6 RC holes from the bottom of the pit, a total of 161 RC samples were sent to ALS laboratories in Orange as a single batch of samples. Along with the 161 RC samples were 4 field duplicates. No blanks or standards were submitted by MBR. Routines standards and blanks were analysed internally by the assay laboratory showed no anomalies.

## 11.1.3.1.1 Duplicates

Four field duplicates were submitted during the 2016 RC drill program (Figure 11-1). Field duplicates should return 70% less than 10% HARD. This guideline assumes a high proportion of duplicates would be low grade "waste" samples. Three of the Mt Boppy field duplicates are above 0.3g/t.

17 pulp duplicates (~ 10%) are re-assayed during sample preparations. A guideline is 90% should have less than 10% HARD values. The Mt Boppy pulp duplicates show only 2 low grade samples (< 0.04g/t) are above 10% HARD (Figure 11-2).

## 11.1.3.1.2 Blanks

Blanks were incorporated into the sample stream at the laboratory, 7 blanks returned < 0.01g/t and 2 returned 0.01 g/t Au. The blanks showed no contamination during the sample preparation stage.

## 11.1.3.1.3 Standards.

Standards were analysed by ALS Minerals as part of their routine internal QAQC procedures. In total 25 standards were assayed with the batch of 161 RC samples. Analysed standards, certified expected values and standard deviations are presented in Table 11-1.

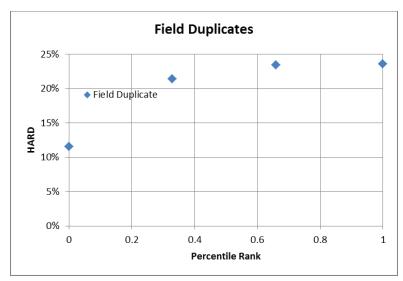


Figure 11-1: 2016 Field Duplicates

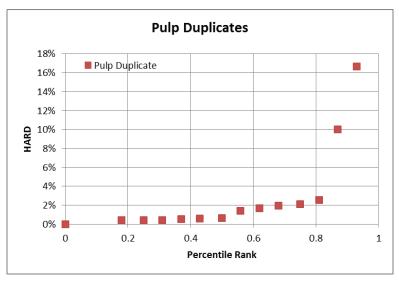


Figure 11-2: Pulp duplicates.

Table 11-1: Number	<sup>·</sup> of	standards	analysed.
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Standards	# Submitted	Expected Value (g/t)	Standard deviation
BP-13	9	0.36	0.01
G912-4	4	1.91	0.09
OREAS 215	5	3.54	0.10
OxD128	4	0.42	0.01
OxP116	3	14.92	0.36

The certified standard results were standardised (Z-Score) to the standard deviation (Figure 11-3). One standard, OxP116, a high-grade standard at 14.92 g/t Au expected value, reported low outside the lower warning level of -2x the standard deviation but within the control level of -3x Standard

deviations. OREAS 215 consistently showed a slight positive bias, the expected value for ORAS 215 is 3.54 g/t, the returned assays are well within the warning level (+2SD) and plot just below +1SD line.

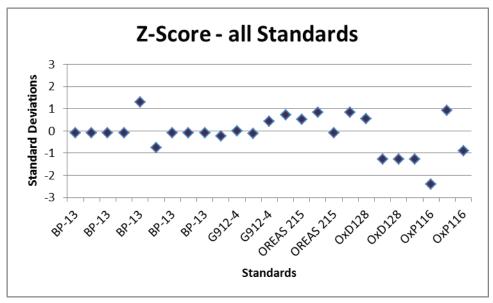


Figure 11-3: Z-scores of all standards.

## **11.1.4** Adequacy opinion

MA has reviewed the provided data and although it appears that this work was done to an industry acceptable standard, there is always a risk involved with geological interpretations and grade continuity.

Generally, the results of the QA/QC program implemented by MBR and earlier BOK are considered satisfactory for an advanced stage property. It is MA's opinion that the sample preparation, security and analytical procedures were adequate and follow accepted industry standards for an advanced mining property.

## 11.2 MANUKA

MA was not supplied with original data regarding drill sample preparation, analytical QAQC or sample security. Nil (or only very limited) information was available for drilling activities prior to CCR acquiring the project in 2009. For CCR drilling, an assessment of assay methods and assay quality is available in the most recent resource estimation report (MPR, 2014).

## **11.2.1** Sample security

MA was not supplied with any information regarding sample chain of custody and security procedures for the Project.

## **11.2.2** Sample analyses

Samples from CCR's RC and blast hole drilling from 2009 onwards, and those from BOK's in-pit RC drilling in 2014 were assayed by ALS Global in Orange, NSW. Samples from CCR drilling prior to 2009 were analysed by SGS laboratories in Cobar.

## 11.2.2.1 Laboratory preparation and analysis procedures

## 11.2.2.1.1 Drying

Drying charges were applied only to samples that are excessively wet. Preparation charges are based on samples being received in calico bags in a relatively dry state. Other charges may apply for samples received in plastic bags and which require tray drying and re-bagging of residues into new bags.

## 11.2.2.1.2 Crushing

Samples that were too coarse to be put directly into a large pulverising mill, or where the particle size needed to be reduced prior to taking a representative split for further pulverisation, were crushed using a jaw and/or fine jaw crusher. This process was only necessary for the relatively small number of diamond core samples from the Manuka Property.

## 11.2.2.1.3 Splitting sub-samples

Samples that were too large to be placed directly into a large pulverising mill (i.e. >3 kg) were split prior to pulverising.

## 11.2.2.1.4 Pulverisation

Approximately 3 kg of material was pulverised using 'flying disk' or 'ring and puck' style grinding mills. ALS guaranteed that for most sample types at least 85% of the material was pulverised to 75 micron (200 Mesh). Approximately 200 g of pulverised material was scooped from the mill to generate a 'master package' for analysis. Remaining material was bagged and retained.

#### 11.2.2.1.5 Sample analysis

Routine analysis of pulverised samples used the following procedure:

- Digestion of a 0.5 g charge of sample in aqua regia (nitric acid-hydrochloric acid mix) in a graphite heating block for 120 minutes.
- Dilution with deionised water to 12.5 ml.
- Analysis by inductively-coupled plasma atomic emission spectrometry (ICP-AES). The majority of samples were analysed for Ag and Pb, with Ca, Fe, S and Zn included for some batches.
- For samples reporting elements at the upper detection limit of ICP-AES, another 0.5 g charge was taken and digested with aqua regia, diluted to 100 ml and analysed by ICP-AES or by atomic absorption (AA).

## 11.2.3 Quality control

The following description of quality control procedures and results is taken from MPR (2014).

## 11.2.3.1 QC program

Quality Assurance ("QA") concerns the establishment of measurement systems and procedures to provide adequate confidence that quality is adhered to. Quality Control ("QC") is one aspect of QA and refers to the use of control checks of the measurements to ensure the systems are working as planned.

The QC terms commonly used to discuss geochemical data are:

• Precision: how close the assay result is to that of a repeat or duplicate of the same sample, i.e. the reproducibility of assay results.

- Accuracy: how close the assay result is to the expected result (of a certified standard).
- Bias: the amount by which the analysis varies from the correct result.

CCR adopted QA/QC protocols involving analysis of field duplicate samples, blank samples, certified reference materials (CRM) or standard materials, and inter-laboratory check analysis. Pre-CCR QA/QC protocols are not known.

According to MPR (2014), the following QA procedures were followed by CCR:

- Coarse blanks were inserted in assay batches for most drilling phases at average frequency of around 1 per 30 primary samples.
- From 2009 onwards, fine blanks were inserted in assay batches at an average frequency of 1 blank per 43 primary samples.
- From 2009 onwards, reference standards were included in assay batches at an average frequency of standard 1 per 39 primary samples.
- Selected sample pulps from the 2008 drilling program initially assayed by SGS in Cobar were repeated by ALS in Orange.
- No inter-laboratory repeats are available for later ALS assays.

In addition, ALS Global in Orange conducts its own internal QA/QC consisting of CRM testing, duplicate assaying and repeats along with primary sample analysis.

## 11.2.3.2 QC program results

## 11.2.3.2.1 CRM results - accuracy

Summary of CRM's submitted for each year during CCR's drilling program is shown in Table 11-2, and a list of CRM's used for silver and lead analyses are given in Table 11-3. Insertion rates for CRM are somewhat lower than the 1 in 20 to 1 in 25 that MA would expect for an advanced project.

Year	Number of assays	Number of CRM	<b>CRM Insertion Rate</b>
2009	2,704	93	1:29
2010	1,594	53	1:30
2011	8,267	293	1:28
2012	2,628	47	1:56
2013	19,057	383	1:50

Table 11-2: Summary of (	CRM insertion rates by year.
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#### Table 11-3: Details of CRM used.

CRM ID	Certified Ag g/t	Certified Pb %	Number used
GBM398-4	48.7	1.17	199
GBM399-5	24.2	2.12	64
GBM908-13	151.4	-	248
GBM908-5	58.2	0.04	45
OREAS131A	30.9	1.72	65
OREAS133A	100.0	4.90	204
OREAS34A	17.2	0.39	43

Figure 11-4 illustrates assay results for CRM relative to certified values. Graphs are taken directly from MPR (2014): original data was not available for re-plotting, and these graphs do not include the 'acceptable limits' for each CRM that are given by the manufacturer.

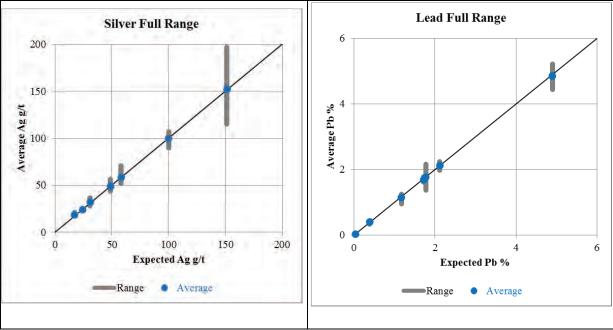


Figure 11-4: CRM results for silver and lead.

Most data appear to plot within the acceptable limits of results for each CRM. However, there are some results for silver and lead in GBM908-13 and GBM908-5 that are well outside the limits and which most likely indicate sample misallocation. OREAS certificates show that the certified values used in the MPR (2014) assessment (Table 11-3) are incorrect, since they relate to 4-acid digest rather than the aqua regia digest used by CCR.

## 11.2.3.2.2 Coarse Blanks - Contamination

CCR included coarse blanks in assay batches for most RC programs to test for sample misallocation and contamination during sample preparation. Coarse blank samples were sourced from RC samples of barren rock units, including dolomitic limestone and granite. MPR (2014) analysed data for 942 coarse blanks representing an average frequency of one blank per 38 primary samples from CCR's 2008 to 2013 RC drilling. 31 blanks returned silver assays of greater than 2 g/t, and 8 of these returned assays greater than 5 g/t (Figure 11-5). It is likely that most anomalous assays represent sample misallocation. Coarse blank material from RC chips may also have been contaminated during preparation or storage.

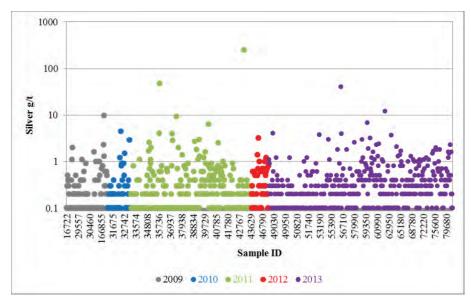


Figure 11-5. Coarse blank results by year for silver.

From 2009 onwards CCR included submission of fine blank samples (quartz sand prepared by OREAS) in assay batches. Fine blanks did not undergo the full range of sample preparation by the assay laboratory and they primarily check sample misallocation and analytical calibration.

MPR (2014) analysed results for 795 fine blanks representing an average frequency of one blank per 43 primary samples. Results include 11 anomalous samples with silver assays greater than 0.5 g/t. MPR (2014) concluded that most anomalous samples could be explained by either substitution of a CRM for a blank, or by sample number misallocation. Fine blank results by year are shown in Figure 11-6.

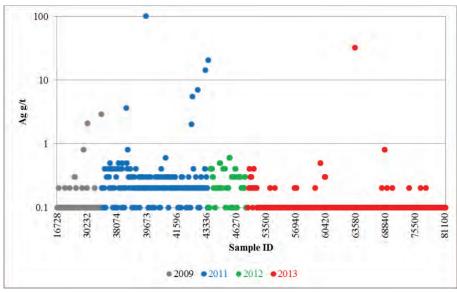


Figure 11-6: Fine blank results by year for silver.

# 11.2.3.2.3 Field Duplicates – Precision and Bias

From 2009 onwards CCR's RC drilling procedures included collection of field duplicates, with an average submission frequency of one duplicate per 35 primary samples. Duplicate samples were submitted in the same assay batch and assayed consistently with corresponding original samples.

CCR field duplicates results analysed by MPR (2014) included four duplicates with incomplete information, such as missing original samples, or missing depths, and three samples with poorly correlating assay results that appeared to be misallocated. These samples were excluded from the review dataset.

Duplicate lead and silver results are shown in scatterplots in Figure 11-7 and Figure 11-8. Error lines showing +/- 20% difference between duplicate pairs are also shown. Lead duplicates perform significantly better than silver, although there are several pairs with more than 20% difference between original and duplicate samples. The scatterplot for silver shows poorer precision and a bias to higher grades in duplicate samples above about 200 g/t.

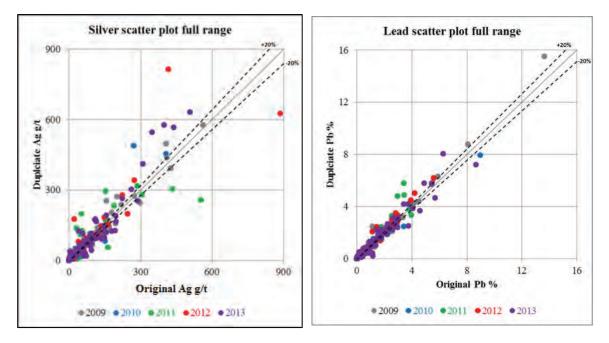


Figure 11-7: Field duplicate results for silver



## 11.2.3.2.4 Laboratory QA/QC

ALS Global's laboratory in Orange conducted its own internal QA/QC consisting of CRM testing, duplicate assaying and repeats. Full results of the ALS QA sample analysis were not compiled by CCR. However, correspondence from ALS to CCR in 2012 was found that highlighted an issue with the precision of silver analyses of laboratory pulp duplicates of blast hole sample batches. ALS identified duplicate analyses that were returning silver assays outside the expected analytical precision range.

To follow up these results, ALS undertook analysis of 6 samples using different methods, with ten duplicates analysed for each method:

- ME-OG62: 0.5 g charge, 4 acid digest, ICP-AES finish
- ME-ICP43: 5 g charge, aqua regia digest, ICP-AES finish
- ME-ICP43i: 2.5 g charge, aqua regia digest, ICP-AES finish
- ME-ICP52: 0.5 g charge, nitric/hydrochloric/perchloric digest, ICP-AES finish
- XRF05: 30g charge, pressed powder pellet, XRF analysis
- Leachwell: 30 g charge, accelerated cyanide leach using Leachwell reagent, AA finish

Of the six methods tested, Leachwell performed better, but in ALS' opinion still showed variability outside the analytical method precision. Three samples returned significantly higher grades using 4-

acid compared to aqua regia (increase in mean silver grades of 400%, 200% and 50%), indicating incomplete digestion using aqua regia. It was recognised however, that routine use of 4 acid digestion would return silver grades assays that were unlikely to be recovered in a process plant. Lead assays for the same samples using the same assay methods did not show similar variability.

MA was unable to locate any further documentation and notes that CCR continued using aqua regia digest and ICP-AES finish until mine closure in 2014. The issue was most likely related to silver deportment in at least some samples, and follow-up would have required quantitative analysis to determine the exact reason.

## 11.2.3.2.5 Inter-laboratory Checks

1,324 primary samples from CCR's 2008 drilling program were assayed by SGS in Cobar and 141 pulps were sent to ALS Orange for re-analysis. No other inter-laboratory check analyses were carried out.

MPR (2014) recognised four analysis pairs that were very poorly correlated and appeared to show repeats that were incorrectly assigned to succeeding samples. Figure 11-9 shows scatter and q-q plots comparing silver and lead assays. ALS repeats show a consistent bias towards higher silver grades, with an increase in mean silver of 5%. Lead grades show a good correlation up to 2.5% Pb, after which ALS repeats are biased lower than SGS (although this is due to three outlier data points).

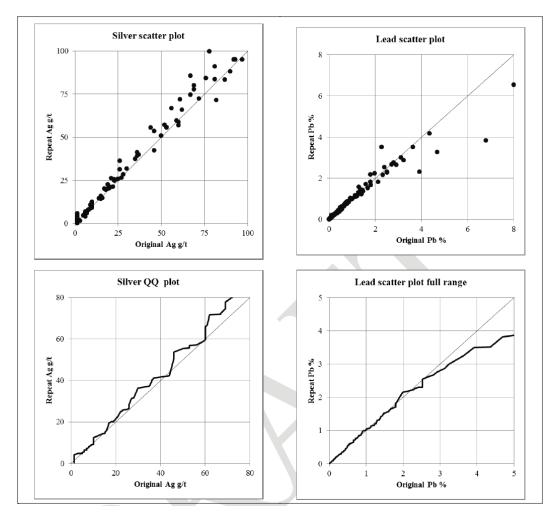


Figure 11-9: Inter laboratory check results for silver and lead.

The reasons for the bias in silver grades is unclear. No CRM results were seen by MPR (2014) for either set of 2008 assays. However, as shown in section 11.2.3.2.4, silver grades appear to be affected by digest type and possibly time/temperature. SGS assaying procedures are not recorded in MPR (2014) and MA has been unable to locate original assay data to confirm the methodology used by SGS.

## 11.2.4 Adequacy opinion

The results of the QA/QC program implemented by CCR are considered satisfactory for an advanced stage property, although some of the issues raised with assaying were not fully followed up. It is MA's opinion that the sample preparation, security and analytical procedures were adequate and follow accepted industry standards for an advanced mining property.

# **12 DATA VERIFICATION**

## **12.1 MT BOPPY**

Data verification mainly involved examination of available hard copy data available from the mine site and exploration office.

Quantity and grade of mineralisation is confirmed by mine production records and in MA's opinion no independent samples were necessary. Collar locations of drill holes were not verified in the field, a large number of drill collars have been removed/disturbed by mining activities. The project has been inactive since 2011. A brief RC drill program was conducted in 2016, (6 RC holes), confirming the nature and tenor of the mineralisation, and shoring up the location of known stopes.

## 12.1.1 Twin drill holes

Two diamond core holes were partially twinned with shorter RC holes. Holes (Figure 12-1).

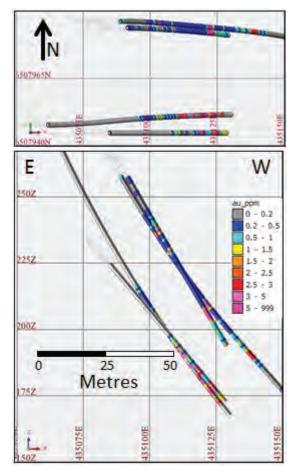


Figure 12-1: Plan view and section view - partially twinned holes.

Analyses of twinned RC and diamond holes showed a close match between grade and length of intersected mineralisation (Figure 12-2, Figure 12-3), minor offsets were noted in holes PMS118 and DD06PMS141 (Figure 12-2), holes PMS123 MBRC002 are more variable, with notable spikes in the DD hole, this is likely due to the volume variance effect attributed to the different volume of sample. The bottom spike is in the hanging wall of a stope. The RC hole naturally would have poor sample return in the last metre due to air loss breaking into the stope. The outliers in the diamond hole (184

m for 66.2 g/t and at 174 m for 43.3 g/t) show an increased nugget effect when using smaller volume samples.

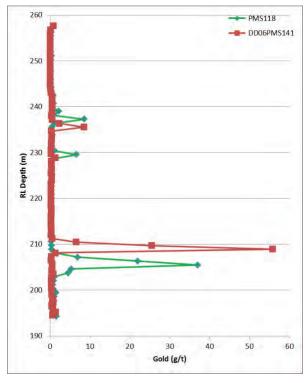


Figure 12-2: Twin holes PMS118 (RC) and DD06PMS141 (DD).

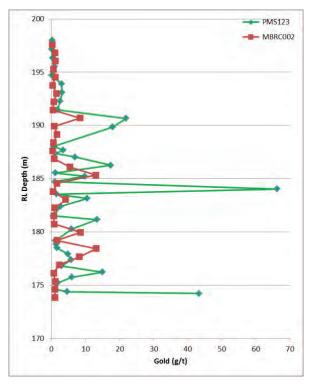


Figure 12-3: Twin holes PMS123 (RC) and MBRC002 (DD)

## 12.1.2 Drill hole database

Data was supplied to MA as an MS Access database as used by the Mt Boppy Mine site. The drill hole database integrity was reviewed for internal consistencies, duplicate sample numbers and assay reference numbers. Database tables were found to be internally consistent, with no duplicate downhole records and no overlapping downhole intervals.

Database was originally compiled by BOK from historic data files and data collected from drilling. BOK used a database management system to ensure validity of all data. MA undertook random checks of assay values in database against original assay certificates did not find any inconsistencies

## 12.1.3 Site visit

Mr Ian Taylor visited the Mt Boppy gold project site on 16<sup>th</sup> March 2016. Operations have been on care and maintenance since November 2015 and no mining has been carried out since. MBR drilled six RC holes in August 2016 and this new data is incorporated in the current resource statement. Mr Taylor viewed lithologies; structures and alteration halos exposed in inactive open pits. The core yard was visited and limited core was laid out for inspection. Core is stacked on pallets in a fenced compound near the Mt Boppy Exploration office/house south of Canbelego. Production records confirm the extent and grade of known mineralisation and it was not deemed necessary to collect independent samples.

## 12.1.4 Limitations

The quality of the data is suitable for resource estimates. Data used in the preparation of this report was provided in digital format retrieved from the previous lease holder's server. Summary reports written by independent consultants for the previous lease holders were relied on in the preparation of this report. MA has sighted limited physical hard copies and certified laboratory reports, a summary of 1306 density records is available, and no original geological logging sheets have been sighted.

## **12.1.5** Verification opinion

Based on the data verification performed, it is MA's opinion that the data reviewed is adequate for the purposes used in this Technical Report. Any shortcomings in data quality are reflected in the classification of mineral resources.

## 12.2 MANUKA

Data verification mainly involved examination of the large amount of data available from the mine site. The quantity and grade of mineralisation is confirmed by mine production records and in MA's opinion no independent samples were necessary. Collar locations of drill holes were not verified in the field, but many drill collars have been removed/disturbed by mining activities. The project has been inactive since November 2015 and no sampling/assaying procedures could be observed.

## 12.2.1 Twin drill holes

## 12.2.1.1 RC-DD pairs

As noted by MPR (2014), there are no true twin drill holes at Manuka (i.e. pairs of holes drilled with the specific purpose of validating sampling). Four diamond core (DD) holes drilled by CCR in 2009 are within 10 m of an RC hole (Table 12-1). All DD holes were drilled at an inclination of 75° west, while the nearest RC holes are all vertical. To compare sample assays, the sample locations were desurveyed and matched by RL of the sample midpoint.

Hole ID 1	X1	Y1	Z1	Hole ID 2	X2	Y2	Z2	separation (m)
BS056	381990.3	6431270	228.92	CCRD422	381990.7	6431266	233.281	3.5
CCRC351	381960.5	6431555	228.21	CCRD423	381955.9	6431561	229.916	7.4
CCRC360	382100.1	6431041	229.09	CCRD425	382097.4	6431045	232.781	4.5
CCRC364	382102.1	6430756	203.72	CCRD427	382100.6	6430761	202.838	5.1

Table 12-1: Locations of RC-DD twin drill holes.

Note: Locations and separation distance are taken from the first sample in each drill hole, not collar locations.

Figure 12-4 shows the results of comparing raw samples between RC and DD drill holes. It is not reasonable to draw too many conclusions from such a small set of data, but the following points should be noted:

- 1. In general, there is a reasonable correlation between the total length and total average grade of mineralised zones (grade >10 g/t Ag).
- 2. There is commonly a mismatch in the depth where higher grade parts of mineralised zones are intersected.
- 3. Variance in Ag and Pb grades between drill hole pairs can be significant.
- 4. Pb does not necessarily show a better correlation between drill holes than Ag.

Points 1 and 2 above indicate that although the broad mineralisation envelope is flat-lying, grade distribution within the envelope is variable and may be controlled by more steeply dipping features.

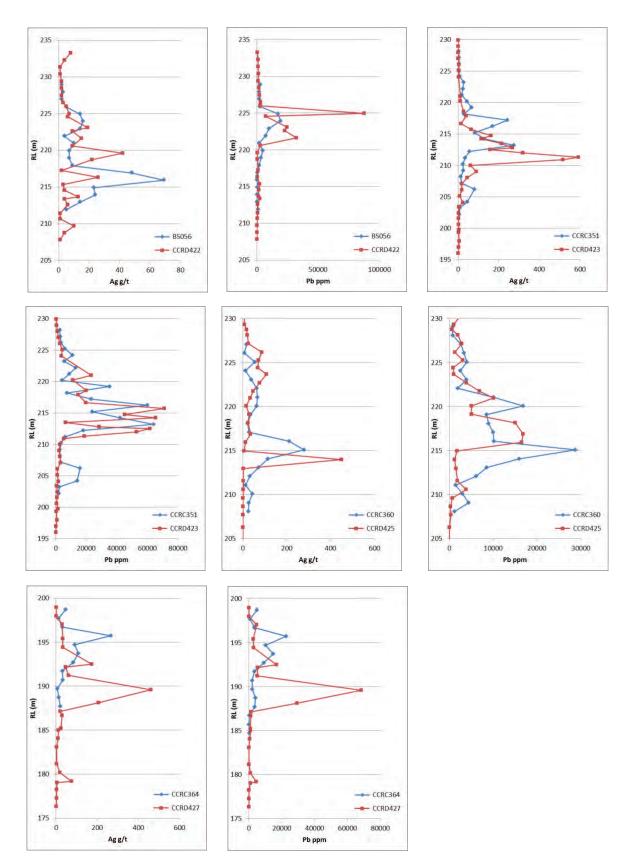


Figure 12-4. Comparative plots of Ag and Pb assays, RC-DD twin drill holes.

## 12.2.1.2 RC-RC pairs

As an additional check on the validity of RC drill sampling, MA extracted pairs of RC drill holes within 6 m of each other. Five pairs were found, three in the Boundary pit area and two in the Manuka pit (Table 12-2). Both holes in each pair were vertical, so samples could be matched using downhole depths. In two cases, the later hole had been drilled after some mining had occurred and the downhole depths were matched by correcting for the collar RL difference.

Hole ID 1	X1	Y1	Z1	Hole ID 2	X2	Y2	Z2	XY separation (m)
BS199	381910	6431350	241.8	BS050	381910.4	6431348	241.72	2.3
CCRC563	381929.8	6431347	241.8	BS051	381929.9	6431347	241.79	0.2
CCRC863	381889.9	6431650	244.53	BS164	381888.3	6431650	227.05	1.7
CCRC1321	381077.3	6433239	247.64	CCRC1148	381080.1	6433239	254.97	2.9
CCRC513	381270.3	6432924	251.67	CCRC643	381271.8	6432923	251.7	2.2

#### Table 12-2: Twin RC holes locations.

As with the RC-DD twin holes, results from such a small data set should not be over-interpreted, but similar conclusions can be drawn (Figure 12-5, Figure 12-6):

- 1. In general, the length and position of mineralised zones matches between drill hole pairs.
- 2. Two pairs (CCRC1321/CCRC1148 and CCRC513/CCRC643) show very good correlation for Ag and Pb, although in both cases Ag samples appear to be offset compared to Pb for one drill hole. This may indicate sample numbering, or depth transcription errors.
- 3. Two pairs (BS199/BS050 and CCRC563/BS051) show very wide variation between Ag and Pb assays, despite having been apparently drilled in almost the same collar position. This may indicate transcription errors in the location of one of the drill hole collars.

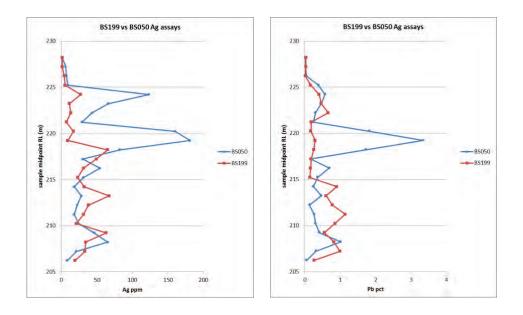


Figure 12-5: Comparative plots of Ag and Pb assays, RC-RC twin drill holes.

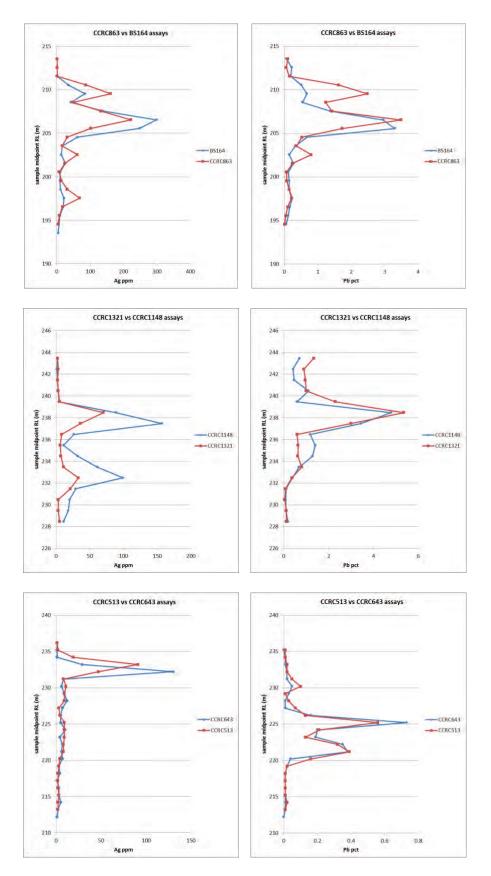
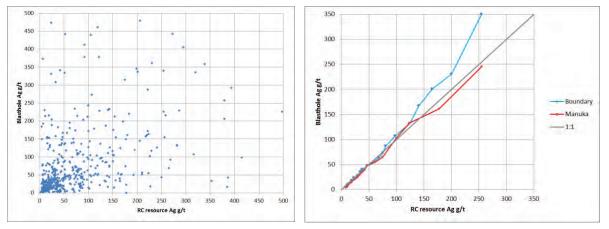


Figure 12-6: Comparative plots of Ag and Pb assays, RC-RC twin drill holes.

## 12.2.1.3 Blast hole – RC pairs

To confirm the validity of blast hole and RC drill hole assays, pairs of samples of each drilling type in proximity were extracted and analysed. 2 m downhole composites were created for both drilling types, with RC composites restricted to mineralised intersections (>10 g/t Ag). Pairs were selected where blast hole composites were within 2.5 m in the XY plane and 1 m in the Z direction of RC composites.

Figure 12-7 and Figure 12-8 show the results as scatterplots and Q-Q plots, with Boundary and Wonawinta deposits shown separately on the Q-Q plots.





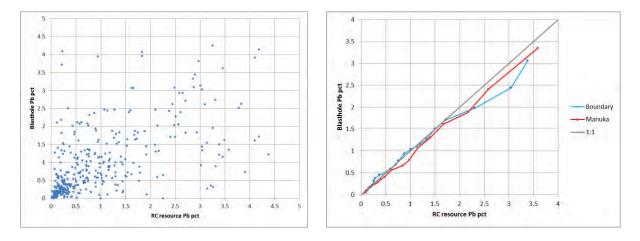


Figure 12-8: Scatterplot and Q-Q plot of lead grades, RC and blast hole composite pairs.

The scatterplot for silver shows a very poor correlation between proximal sample pairs. However, Q-Q plots for silver show a very good correlation for Manuka at all grades. Boundary shows a similarly good correlation, but with a bias to higher grades in blast hole drilling above 100 g/t. The scatterplot for lead is slightly better than for silver, but still poorly correlated. Q-Q plots for lead are similar for Manuka and Boundary, with a slight bias to higher lead grades in RC drilling above 1.5% in both deposits.

Results are interpreted to support what is seen in the smaller datasets for RC-DD and RC-RC pairs: reasonable overall correlation of grade tenor at the deposit scale, but poorer spatial correlation between proximal samples. The poorer correlation of silver versus lead scatterplots may be

explained in part by analytical precision, as highlighted in section 11.2.3.2.4. The main other factor contributing to poor spatial correlation is a high short-range variability in grade.

The bias to higher silver grades in Boundary blast hole samples above 100 g/t Ag appears to match the sampling bias from fines loss, which was also more significant above 100 g/t Ag. If fines loss is the cause for the RC-blast hole bias, then it would appear to affect only samples from Boundary.

## **12.2.2** Drill hole database

The drill hole database integrity was reviewed for internal consistencies, duplicate sample numbers and assay reference numbers. Database tables were found to be internally consistent, with no duplicate down-hole records and no overlapping down-hole intervals.

During the process of geological modelling, MA noted that three drill holes (CCRC759, PWRC10 and 3) intersected key geological contacts at very different depths to nearby holes. It is assumed that the collar positions for these holes were incorrectly entered in the database.

During checking of close spaced RC holes for sampling accuracy, MA noted that two pairs of holes were highly unlikely to have been located correctly (i.e. one of the holes was not in the correct location), or sample assays had been allocated incorrectly. In one case the collar locations were within 10 cm of one another (CCRC563 and BS051).

## 12.2.3 Site visit

Mr Ian Taylor briefly visited the Manuka Property site on 16<sup>th</sup> March 2016. Operations have been on care and maintenance since November 2015 and no mining or exploration activity has been carried out since then. Mr Taylor viewed lithologies; structures and alteration halos exposed in inactive open pits but did not inspect core and RC chips in the storage facilities. Production records confirm the extent and grade of known mineralisation and it was not deemed necessary to collect independent samples.

## 12.2.4 Limitations

The quality of the data is suitable for resource estimates. Data used in the preparation of this report was provided in digital format retrieved from the previous lease holder's server. Summary reports written by independent consultants for the previous lease holders were relied on in the preparation of this report. MA has not sighted physical hard copies or certified laboratory reports, no original density data is available, no original geological logging sheets or core/RC chips have been sighted.

## 12.2.5 Verification opinion

Based on the data verification performed, it is MA's opinion that the data reviewed is adequate for the purposes used in this Technical Report. Any shortcomings in data quality are reflected in the classification of mineral resources.

## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020).

## **13.1 MT BOPPY**

#### 13.1.1 Past processing

The Mt Boppy deposit has been successfully treated by a number of methods, with operations dating back to 1901. In the first period of production – 1901 to 1922 - reported gold production was 13.5 tonnes from 1 million tonnes of ore (McQueen, 2005).

This early phase would have processed largely 'oxide' ore, although presence of sulphides is indicated. The processing employed amalgamation for recovery of free gold, gravity recovery of gold bearing sulphide concentrate and cyanide leaching of gold from the 'tailings. As the mine reached greater depths (900 feet) the content of more refractory sulphide-bearing mineralisation had significantly increased, and fine grinding and air-agitated tank leaching was introduced. Coarse gold bearing sulphides, from which gold did not leach, were extracted separately.

Historic tailings, assaying  $\sim$ 3g/t, were processed by CIP from mid-1975 to September 1976: 200,000t feed for 167,760g of gold. Another operating phase went from 1985 to 1991, treating old tailings supplemented with fresh ore from mining remnants of the underground resource from the open pit.

Polymetals Mining, 1995 to 2005, variously processed backfill sands from the underground workings accessed by an open pit into the old workings, and higher grade, previously unmined ore, through fine grinding and CIP plant.

In August 2005, Peak Gold Mines (PGM) undertook a plant trial of toll treating; processing 14,700t at 9.34g/t Au from the Mt Boppy mine.

In the latter half of 2015, Black Oak Minerals Limited (BOK), the 'descendant' of Polymetals, mined and crushed ore at Mt Boppy, and trucked this to Wonawinta for processing.

## 13.1.2 Mt Boppy metallurgical characteristics

## 13.1.2.1 Peak Gold Mines testing and trial

During the 2005 trial, PGM conducted laboratory leaching test work. For one sample, with a head grade of 9.6 g/t, a recovery of 80.6 % was obtained at a 59-micron grind size. The leach extractions for various grind sizes are contained in Table 13-1.

Sample Head Grade Au g/t	Grind Size, p80 microns	Gold Recovery %
9.6	114	73.1
	81	78.0
	59	80.6

#### Table 13-1: Peak Goldmines test work.

Available information on performance from the plant trial at PGM in August 2005 is limited, with recovery estimate from the high-grade feed for the trial to be 74-78% for reported grind size achieved close to  $75\mu m$ . No significant issues were raised, but it was noticed that slurries were

viscous, gravity recovery was low, and that there were large amounts of wood due to poor material handling on the ROM pad.

## 13.1.2.2 ALS test work - 2012

Brief results:

- The Sands sample gave reasonable gold extraction by direct cyanidation, achieving a tail grade of ~0.65g/t for a recovery of ~78% from a feed grade of 2.95g/t Au.
- The Oxide sample achieved a final tail grade of ~0.12g/t.
- The Transition sample achieved a tail grade of ~0.44g/t.
- Direct cyanidation of the unoxidised ore types Fresh and Hanging Wall resulted in a gold extraction profile indicative of 'preg-robbing'. Supporting evidence was inconclusive but a 'black scum' was observed during testing.
- Incorporating CIL conditions for the higher grade HW sample provided improved outcomes, though overall recovery was low. Final tail grade was ~1.3g/t, 70% recovery.
- A Bond Work Index of 18.1kWh/t was determined for this sample.

Outcomes:

- Finer grinding does release more gold in all cases.
- Diagnostic leaching was carried out on the residue of the Hanging Wall CIL test. 93% of the gold was locked within sulphides.
- A component that causes preg-robbing of gold during cyanidation, unless activated carbon is added to counteract the effect.
- An association between some of the gold and the contained sulphides which make it refractory to leaching, even after grinding as fine as 15 microns.

## 13.1.2.3 Wonawinta plant operations

The best source of information on processing of current Mt Boppy ore should be the BOK monthly reports of September and October 2015, referring to processing through the Wonawinta plant. It is noted that, presumably based on the ALS test work, the Wonawinta plant was modified to be full CIL. Production is shown in Table 6-4 and recovery averaged 74%.

It appears that a considerable contribution to the reported improvement in recovery was as a result of commissioning the secondary mill into the circuit and modifying the classification cyclones to approach the target grind size P80 of  $53\mu$ m. Feed rates were 65-70tph wet.

From the October table of ROM Stockpiles and movements, Stope fill, at ~2.8g/t Au, made up ~11% of material hauled to Wonawinta, and presumably processed. The Stockpile table indicates that a trial parcel of 3,500t (~60 hours of feed) @ ~5g/t Au was mined and hauled. The majority of mined and hauled material, fresh 'rock', had a reported grade of ~3.7g/t Au. The weighted average of hauled ore estimates was 3.6g/t.

Daily feed grades ranged from a low of 1.2g/t to a high of 6.3g/t. For the material processed, the tail grade increased with increasing feed grade. Indicated recovery for a period of ~2.0g/t feed was ~85%; 0.3g/t tail grade. For a period of ~4.0g/t feed, recovery was ~73%; 1.1g/t tail.

For the trial parcel, tails grade was  $\sim 1.2$ g/t Au – 76% recovery - from a feed of  $\sim 5.0$ g/t Au.

## 13.1.2.4 Manuka Resources test work

Manuka Resources are currently conducting test work at AMML on samples of stockpiled ore from previous operations at Mt Boppy.

From sample feed grades of 3.4 - 4.3 g/t, gold extractions of 80% have been obtained with gold residues of 0.7 - 0.8 g/t Au. Diagnostic leach tests conducted in both the ALS and AMML test work indicate that 80 - 90% of the residue gold is locked as very fine particles within sulphide minerals.

## 13.1.2.5 Conclusions

MRL have concluded that:

- Mt Boppy ore is grind sensitive and contains a possibly variable, preg-robbing component. Preg-robbing is generally caused by a carbonaceous component in the ore. The use of activated carbon in all process leach tanks negates the effect of preg-robbing. The design is to have a CIL circuit.
- There is a refractory gold component where gold is "locked" in sulphides. This component limits the gold recovery to moderate values.
- Decreasing the grind size from 75 microns to 53 microns gives a 3 4% increase in gold recovery. Further size reduction gives additional small improvements, but the grind size is practically limited. The design is to have a product of 80% passing 53 microns.
- Increasing the cyanide concentration above an initial 500 ppm, appears to give improved gold recovery. However, due to the requirement to detoxify the cyanide in the tailings stream, this variable will best be assessed, in combination with the detox chemical requirements, during plant operations.
- Testwork is being undertaken to determine the potential benefits of oxygen addition in the downstream CIL process and this will quantify any positive effects on gold recoveries.
- The test work data shows gold recoveries in the range 71% 82% for CIL test work with head grades in the range 3.5 4.5 g/t Au. From both the plant trial and test work information a gold recovery of 74% has been selected for the reserve design criteria.

From review of the data presented, these conclusions are determined to be valid.

## 13.2 WONAWINTA

Limited mineral metallurgical testing was carried out on the project as part of CCR's feasibility study (CCR, 2011). A total of 17 drill holes (8 PQ core and 9 RC) provided samples for metallurgical test work, gravity test work, vat leach testing and flowsheet optimisation. All drill holes were located in the Boundary area, within and to the south of what would become the Boundary pit (Figure 13-1). Six composite samples were produced, which were intended to represent the main mineralisation types: oxidised clay, oxidised limestone, competent limestone, pale clay, dolostone saprock and black clay.

In addition to the metallurgical test work samples, 634 sample pulps (75-micron grind size) were submitted for Leachwell analysis by ALS Laboratories in Perth. Samples were taken from a variety of different mineralisation types from Boundary, Wonawinta, Bimble and Belah areas (Figure 13-1). Results were used to define the amenability of different mineralisation types to cyanide leaching and expected silver recoveries.

The low number of metallurgical samples and limited geographical spread raises doubts regarding the representivity of the material tested. The composite sample component core intervals exhibited

a high degree of variability which would have been normalised in the compositing process. There were no variation samples tested.

Metallurgical test work types and results are summarised as follows:

- Limited comminution testing on two samples
  - Bond Crushing Work Index (Average 5.1 kWh/t)
  - Bond Rod Mill Index (Average 14.6 kWh/t).
- Gravity separation test work
- Did not produce a saleable lead concentrate grade.
- Flotation Test Work
  - Poor yield with reasonable concentrate head grades
  - Sulphidisation was unsuccessful.
- Cyanide leach tests
  - $\circ$  Silver extractions in cyanide of 90-95% on -106  $\mu$ m samples
  - $\circ$   $\,$  Coarser sizes reduced silver extraction often to less than 50%.
- Carbon Adsorption Tests
  - $\circ$   $\,$  Greater than 95% of the silver in solution was recovered
- Settling Test
  - Underflow product could only be settled to 31-33% solids
  - Target settled densities of 50-60% solids were not achieved
- Mineralogical Analysis
  - The only silver minerals identified are trace amounts of tetrahedrite and pyrargyrite, despite the presence of up to 120 ppm Ag in the samples examined
  - o One analysis estimated 73% of the silver was present in goethite
  - Lead was present as anglesite in the pale clay, as cerussite in the dolostone saprock and as galena in the black clay
- Mineralogical CIL Tailing Analysis by QEMSCAN®
  - $\circ$  Major gangue minerals: quartz, followed by muscovite, goethite, siderite and dolomite
  - Silver mostly as Ag-bearing sulphides such as argentite, pyrargyrite and/or stephanite followed by Ag-rich tetrahedrite and proustite
  - o Poor silver liberation in the tails residues
  - $\circ$  Highest silver found in the -75  $\mu m$  +38  $\mu m$  range and -38  $\mu m$  size fractions
  - $\circ$  Average size of the silver minerals approximately 6  $\mu$ m
  - $\circ$  Coarsest silver species (Ag-tetrahedrite and proustite, ranging between 35 μm and 65 μm) were found in the sample fraction -75 μm +38μm.
- Multi-stage silver diagnostic test work
  - 20% of the silver in tailings leachable in cyanide
  - Remaining silver mineralisation is locked with other particles.
- Leachwell analysis of sample pulps
  - Oxidised clay samples gave Leachwell recoveries of 90-98%
  - Oxidised 'ferricrete' samples gave lower recoveries when Fe grade was >20%

- Oxidised limestone gave variable and on average lower Leachwell recoveries (75%)
- Leachwell recoveries for fresh clay are on average 80%
- $\circ~$  Fresh limestone/dolostone and fresh mudstone gave the lowest Leachwell silver recoveries around 50%

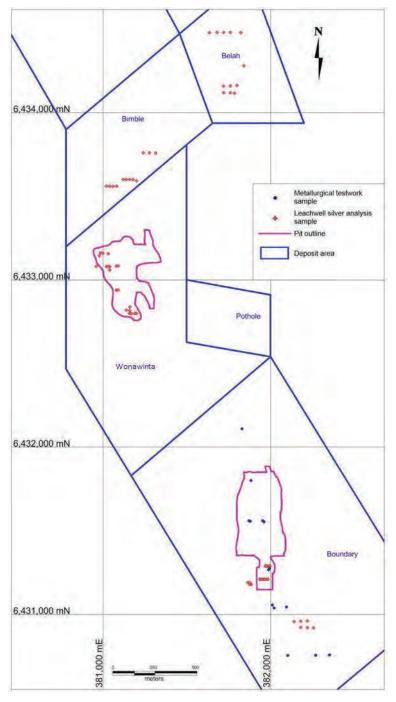


Figure 13-1: Metallurgical test work sample locations.

The feasibility study (CCR, 2011) identified "Test work has demonstrated that the Wonawinta mineralisation is a friable composition with good handling characteristics and economically

leachable with cyanide (recoveries 91 - 98%). The silver leached is readily adsorbed onto carbon for subsequent elution and recovery by the Merrill-Crowe zinc precipitation method." Further details regarding the metallurgical characteristics can be found in the CCR Feasibility study (CCR, 2011).

## **13.3 PROCESSING CRITERIA**

## 13.3.1 Mt Boppy ore

MRL have developed Process Design Parameters for the restart of processing of Mt Boppy gold ore through the Wonawinta plant (Table 13-2). These have been selected based on metallurgical test work reviews and information from past operating plant data and are considered a sound basis for plant design and performance forecasting.

Area	Unit	Value	Comments
Mineable	tonnes	370,000	
Grade Au	g/t	3.3	
Solid sg		2.75	
Plant Availability	%	90	
Ball Wi	kWh/t	18.1	
Grind Size	P80, um	53	
Specific Energy	kWh/t	23.58	
Throughput	t/hour	57.25	One ball mill
Throughput	t/month	38,335	31 days
Recovery Au	%	74	
Production Au	g/hour	125.8	
	g/day	3020	
Leach Feed			
Pulp density	% solids	40	
Volume	m3/h	106.7	
CIL Tankage	m3	2096	live
Residence Time	hours	19.6	
Carbon			
Concentration	gram/litre	15	
Total tonnes	tonnes	31.44	In CIL tanks
Loaded Carbon			
Loading Au	g/t	2500	
Strips	tonnes/d	1.3	

#### Table 13-2: Process design parameters.

#### 13.3.2 Wonawinta ore

This Item is not applicable for this report as Ore Reserves have not been established at Wonawinta.

## **14 MINERAL RESOURCE ESTIMATES**

## **14.1 MT BOPPY**

## 14.1.1 Approach

Mount Boppy is an orogenic gold deposit hosted within Devonian-age sedimentary and volcanic rocks of the Canbelego-Mineral Hill Rift Zone. Mineralisation occurs largely in brecciated and silicified fine-grained sediments of the Baledmund Formation, within and adjacent to a faulted contact with older Girilambone Group sedimentary rocks. Lodes strike approximately north-south and dip steeply west, although the widest zone of mineralisation is related to slightly shallower dips. Gold mineralisation is fine-grained and commonly associated with coarse grained iron rich sphalerite.

The deposit was first mined underground from 1896 to 1923, with a shallow open cut developed at its northern end. Old underground workings encountered in the pit and in drill holes are mostly back-filled with compacted tailings sand and also contain substantial amounts of support timbers.

## 14.1.2 Supplied data

The working database used by Mount Boppy mine department was supplied (mt\_boppy.mdb), with the table structure as shown in Table 14-16. The database contained all drill hole data (exploration and grade control samples) collected by BOK. MBR drilled 6 RC holes (PRC7 to PRC12) from the base of the pit in August 2016, following a previous recommendation by MA to verify the position of stopes and the geometry of remnant mineralisation in the northern part of the deposit below the current pit floor. Drill holes were logged by MBR geologist Mr B. Robertson and 161 samples sent were to ALS laboratories in Orange for gold analysis by fire assay. Logging and assay data were validated and appended to the BOK drill hole database.

Table Name	Description	Records
assay	Includes Ag, Au, As, Bi, Cu, Fe, Mn, Mo, Pb, S, Sb and Zn (majority only Au)	53,274
code	Mineralisation flag for compositing assays down hole	362
collar	Collar information associated with drill type and location	20,011
lith	Logged lithology	5,359
oxide	Depth of oxidation (single numeric code)	284
structure	Structural feature and infill	2,786
survey	Down hole survey data	15,607

#### Table 14-1: Master database structure.

Table 14-17 summarises drilling and sampling statistics grouped by drill hole type within the area of resource estimates but does not include production blast hole drilling (19,715 holes for 106,018 m providing 39,144 samples).

Drill hole type	Number of holes	Metres Drilled	Number of Samples	Metres Sampled
DD	31	8775.36	6178	5179.4
PER	70	1059.7	309	781.0
RC	177	10592	7239	8567.5
UNK	12	251.47	180	227.0
Total	260	20678.53	13906	14757.86

Table 14-2: Summary of	f drilling in resource	area by drill type.
------------------------	------------------------	---------------------

## 14.1.3 Topography

A detailed digital topographic surface was created by BOK of the original surface features premining.

Topographic control is via a triangulated wireframe surface derived from aerial photogrammetry survey for the pre-mine surface, (topo\_contours.dtm). The near mine surface is a derived from the combination of laser scanning of the slips and differential GPS surveys of the open pit to provide a detailed as built pit survey. (Topo\_clip\_v10.dtm and mine\_pit\_void\_eom\_201511.dtm respectively)

## 14.1.4 Dimensions

Known anomalous mineralisation at Mt Boppy extends north-south along strike for 455 m and a maximum depth below surface of 215 m (Figure 14-1). The horizontal width of combined mineralised domains averages 60 m, and dips 85° to the west. The individual lodes are approximately 2 to 5 m wide.

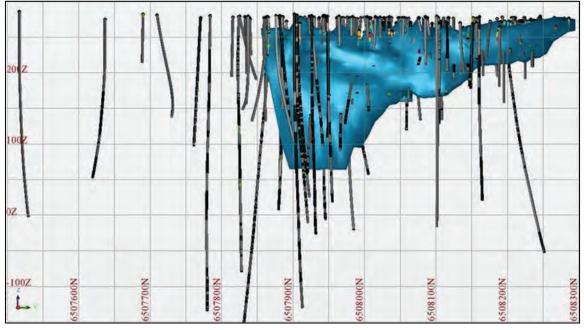


Figure 14-1: Mt Boppy Gold Mine long section looking west. Mineralisation outline in light blue.

## 14.1.5 Geological interpretation

Supplied mineralisation and historic stope wireframes did not, in many places, appear to match with drilling data. MA re-interpreted mineralisation and stope wireframes, using the existing BOK interpretation as a guide. Historic workings plans are incomplete, with most information coming from a 1915 publication by the NSW geological survey. While the main stopes can be modelled with a reasonable degree of confidence, there may be smaller stopes not included in the model that are yet to be encountered.

The main area of uncertainty regards the geometry of both mineralisation and stopes below the current pit floor north of 6508070 mN. Old mine cross sections show that the Main and West lodes join in a synformal (concave-up) keel shape. While this interpretation cannot be ruled out, this region is complicated by the presence of cross-faulting and the true shape could be more like a broad zone of brecciation/massive quartz veining where the lodes intersect. The October 2016 RC

program was not able to conclusively demonstrate whether this geometry is real, although it was successful in confirming the continuity of stopes and mineralisation.

From the interpretation of mineralisation wireframes and historic mining, there is a clear split into a northern and southern domain, which are separated by a gap of weakly mineralised material. The gap appears to be related to a northwest striking fault (Figure 14-2).

Drill hole intervals for RC and DD drill holes were tagged in a separate table in the database using the created stope and mineralisation wireframes. These tags were used to extract sample intervals for statistical analysis and compositing.

## 14.1.5.1 Base of oxidation

Weathering domains were defined by drill hole logging, only the depth of complete oxidation was logged, this provided the oxide/transitional boundary, generally around 215 mRL. The base of weathering is assumed to be at the 175 m RL.

## 14.1.5.2 Mineralised envelope

Mineralisation was interpreted at a cut-off of 1 g/t Au, which represents a natural statistical break in grade distribution (Figure 14-1). Exploration RC and diamond drilling were used as the primary constraints for wireframe interpretation, using east-west sections spaced 10 m apart. Blast hole data was used to augment the interpretation. Wireframe boundaries were snapped to exploration drill hole intervals, but not to blast holes.

The resulting interpretation of mineralisation was similar to that used by BOK, but in many places was more constrained as a result of better fitting to drill hole intersections, and because of additional blast holes after completion of the BOK model. The same applied to stope outlines in some places, particularly in the area underneath the central to northern part of the current pit floor.

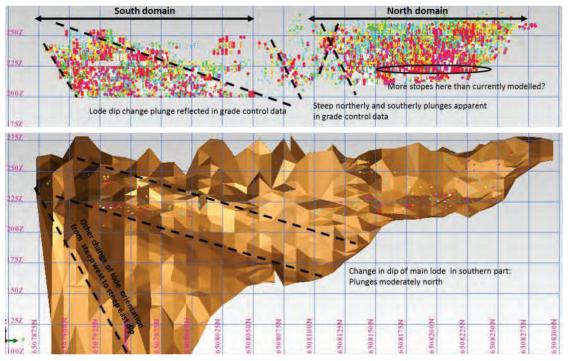


Figure 14-2: Long section view of Mt Boppy showing south and north orientation domains. Top: blast hole samples within mineralisation coloured by gold grade Bottom: mineralisation wireframe showing change in dip of main lode.

## 14.1.6 Data preparation and statistical analysis

Statistical analysis of grade data was principally carried out using the Surpac Software package (version 6.7.1). Surpac is an internationally recognised geological and mining software package, which incorporate geostatistical tools that can be used at all stages of the mining process from initial feasibility studies though to production control.

The purpose of statistical analysis is to define the main characteristics of the underlying grade distribution to assist with the geological and grade modelling work. This process is important as the statistics of the individual sample populations can influence how the grade data is treated and the application of the grade estimation techniques. For example, highly skewed data may require special grade capping and indicator semi-variogram analysis.

The drill hole database is stored in an MS Access relational database. The Mt Boppy database is connected directly to Surpac for data display, down-hole compositing of drill hole assays.

#### 14.1.6.1 Drill hole spacing

Drill hole data spacing is variable (Figure 14-3) throughout the areas assessed and ranges from broad first-pass section drilling (25 m x 25 m) to the blast hole grade control drilling (2.5 x 2.5 m) not shown) in parts of the Mt Boppy pit.

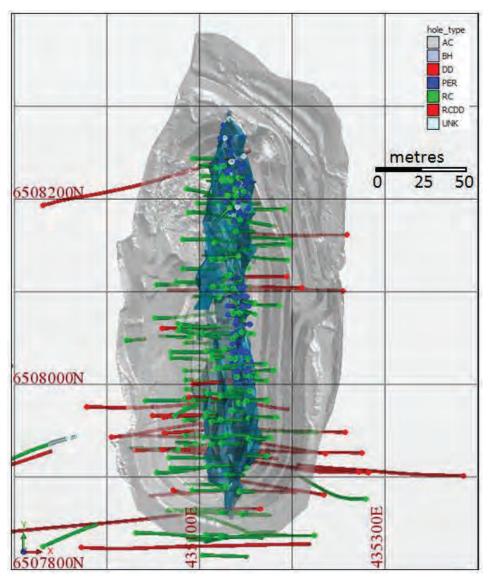


Figure 14-3: Mt Boppy Gold Mine - Drill Hole Plan coloured by drill type. Blast holes not included for clarity. Open pit shown in grey, mineralisation outline in light blue.

# 14.1.6.2 Domains and stationarity

A domain is a three-dimensional volume that delineates the spatial limits of a single grade population, has a single orientation of grade continuity, is geologically homogeneous and has statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to the domains include structural features, weathering, mineralisation halos and lithology.

Due to the tight mineralised structures, stationarity concerns can be minimised by using a similarly tight 1 g/t gold mineralisation shell. A second domain was used to constrain the stope fill.

## 14.1.6.3 Compositing

The objective of compositing data is to obtain an even representation of sample grades and to eliminate any bias due to sample length (Volume Variance).

Several important factors should be considered when compositing: planned mining method, desired selectivity, and the mining bench height. Caution should be exercised when compositing to ensure samples are not split. Mt Boppy was mined by open pit utilising 5 m benches with 2.5 m flitches with a minimum selectivity of 5 m x 2.5 m by 2.5 m (XYZ).

Blast hole samples are mostly 2.5 m lengths, although some 1 m and 3 m samples exist in the database. All blast holes were composited to 2.5 m, which preserved most of the original samples and minimised sample splitting of longer samples. The majority of exploration drilling is RC and was sampled at 1 m intervals. Rather than compositing to 2.5 m to match blast hole samples, which would have resulting in splitting RC samples, exploration samples were composited to 2 m lengths.

Compositing was carried out downhole (RC and DD) within tagged mineralised zones and stope intervals. Blast holes were composited downhole to 2.5 m, a point was created at the centroid of each composite. Separate data sets for blast hole samples within mineralisation and within stopes were created by selecting points within 3D wireframes.

Blast hole and RC-DD data was then combined into a single informing sample data set to be used in resource estimation.

# 14.1.6.4 Basic statistics

Basic statistics describe the univariate statistical characteristics of the mineralisation at Mt Boppy deposit.

Gold statistics for mineralisation and within the defined stope areas are presented in Table 14-18 for Exploration drilling (DD-RC) and for blast holes (BH).

Statistic	DD-RC minz (2 m)	BH minz (2.5 m)	DD-RC stope (2 m)	BH stope (2.5 m)
Samples	853	12125	199	4717
Minimum	0.01	0	0.02	0
Maximum	72.81	418.75	38.47	868.14
Mean	3.55	3.67	3.52	5.08
Standard deviation	7.47	11.35	4.91	19.50
Variance	55.82	128.75	24.14	380.06
CV	2.11	3.10	1.40	3.84
25 percentile	0.785	0.6	0.63	0.75
50 percentile	1.33	1.29	2.11	2.3
75 percentile	3.32	3.23	4.40	4.65
95 percentile	13.21	12.40	10.79	15.90
97.5 percentile	15.84	14.76	12.63	18.44
99 percentile	33.47	30.21	18.53	36.85

#### Table 14-3: Gold statistics.

Blast hole data is considered unreliable for defining mean grades of stope fill due to the likelihood of samples being mixed fill and wall rock material, average blast hole data shows a stope fill grade of 5 g/t.

## 14.1.6.5 Grade capping

Capping is the process of reducing the grade of outlier samples to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample minimises the overestimation of adjacent blocks in the vicinity of an outlier sample. At no stage are sample grades removed from the database if grade capping is applied.

Composite statistics were analysed to determine if grade capping was necessary to reduce the influence of outliers on the estimation. Combined RC-DD data was examined and a grade cap at the 98.5 percentile, or 35 g/t Au, was determined to be optimal. Blast hole data analysis indicated a

higher-grade cap of 65 g/t Au should be applied, but it is likely the blast hole samples tend to overrepresent very high grades due to their tendency to sample directly down sub-vertical veins. The cap of 35 g/t Au was therefore applied to all data.

	Uncapped				Capped			
No. Samples	Mean Grade	Max. Grade	cv	Mean Grade	Capped Grade	cv	% Cap	%Δ
853	3.548	72.813	2.106	3.253	33.472	1.701	1.5%	-8%

Table 14-4: Effect of grade capping on RC-DD data statistics.

# 14.1.6.6 Variography

The most important bivariate statistic used in geostatistics is the semi-variogram. The experimental semi-variogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semi-variograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Variogram maps were produced using blast hole samples in the main plane of mineralisation to determine if any directional anisotropy was present. Variograms were clearly different for northern and southern mineralisation domains. The southern domain showed a fairly well-defined shallow to moderate northern plunge that corresponds with the dip change of the main lode (Figure 14-2). The northern domain was less well defined, and modelling gave an isotropic ellipse in the plane of mineralisation.

Variogram model parameters are shown in Table 14-5. Nuggets were derived from short lags (2 m), and for both domains are around one quarter of the total variance. Maximum ranges are 45 m and 36 m for north and south domains respectively.

Domain	Nugget	sill1	range1	sill2	range2	azimuth	plunge	dip	major/semimajor ratio	major/minor ratio
North	0.27048	0.3377	16	0.8707	45	303	-75	20	1	4.5
South	0.3011	0.4949	10	0.3947	36	351	-20	70	1.5	2.5

Table 14-5: Variogram model parameters.

# 14.1.7 Grade estimation

Kriging techniques were used to estimate grade into parent blocks; estimation was constrained by the lithology and base of oxidation wireframes.

Results of the Krige estimation were validated against raw informing data and estimates by nearest neighbour and inverse distance weighting.

# 14.1.7.1 Methodology

Ordinary kriging ("OK") is a robust grade estimation technique and is the main algorithm used in geostatistics. The most common use of OK is to estimate the average grades into blocks approximating the half the scale of the available drill hole spacing. OK is a globally unbiased estimator that produces the least error variance for grade estimates.

Kriging uses the grade continuity information from the semi-variogram to estimate grades into large blocks. It is also able to accommodate anisotropy within the data and is able to incorporate this in block estimates. Another important feature of kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform. Kriging forms a sound basis for generating block grade estimates at a scale which is appropriate to the sample density. Inverse distance and nearest neighbour estimates were also run for cross validation checks within domains.

All stope fill material was assigned a grade of 3.6 g/t Au, the same figure as used by BOK, which was verified by production records. This is supported by DD-RC composite statistics for stope fill material showing an uncapped mean of 3.52 g/t Au. Blast hole data is considered less useful for defining mean grades of stope fill due to the likelihood of samples being mixed fill and wall rock material.

RC drilling in the northern part of the pit intersected a high proportion of old timbers in the stopes. This may mean that the average 3.6 g/t grade assigned to stope fill will not accurately reflect the material in this area.

# 14.1.7.2 Block model

MA used the same block model parameters as BOK: parent blocks 10 m (y) by 5 m (x) by 5 m (z) with sub-blocking to 1.25 m by 0.625 m by 0.625 m. MA's block model (mt\_boppy\_ma\_2016-1.mdl) was extended down to 60 m RL in order to fully cover the interpreted extent of mineralisation at depth (Table 14-6). The small sub-block size was deemed necessary to accurately model the resolution of mineralisation boundaries, in particular historic stope fill. Attributes were assigned to the model as shown in Table 14-7.

Туре	Y	Х	Z
Minimum Coordinates	6507800	434950	60
Maximum Coordinates	6508350	435300	290
User Block Size	10	5	5
Min. Block Size	1.25	0.625	0.625
Rotation	0.000	0.000	0.000

#### Table 14-6: Block model parameters.

Attribute Name	Туре	Decimals	Background	Description	
Auppm	Real	2	-0.01	Gold ppm estimated by OK - MA 2016	
auppm_cut	Real	2	-0.01	Gold ppm capped to 65 and estimated by OK - MA 2016	
Mined	Integer	-	0	flag (1) for material already mined in open cut and in shafts/drives outside stope volume	
Rescat	Integer	-	0	resource category 1=measured, 2=indicated, 3=inferred, 4=other	
Rock	Character	-	air	rock or air, divided by original topographic surface	
Sg	Real	2	0	specific gravity assigned by weathering and stope code	
Stope	Integer	-	0	flag (1) for historic stope fill material	
weathering	Integer	-	0	1=oxide, 2=transitional, 3=fresh	
zok_ads	Real	2	0	Kriging: average distance to sample	
zok_cbs	Real	2	0	Kriging: conditional bias slope	
zok_kv	Real	2	0	Kriging: kriging variance	
zok_nos	Integer	-	0	Kriging: number of samples	
zok_nw	Integer	-	0	Kriging: kriging number of negative weights	
zok_pass	Integer	-	0	Kriging: estimation pass (1 or 2)	

#### Table 14-7: Block model attributes.

The block model was subdivided using digital terrain models (DTMs) and wireframes and attributes were assigned values or estimated as appropriate. The grade variable (gold) was estimated using OK. Associated estimation statistics are stored (average distance to informing samples, distance to nearest sample and number of informing samples, krige variance, krige efficiency and conditional bias slope). The topography, weathering, lithology, mined code and density were assigned to blocks using DTMs.

# 14.1.7.3 Search parameters

Estimation used Ordinary Kriging in two passes with search ellipse parameters for the first pass derived from variogram model ranges and orientations (major axis ranged from 35 and 45m). Second pass search ellipse distances were approximately double the first pass distances. Informing sample numbers were set at a minimum of 12 and maximum of 32 in the first pass, and 4 and 24 samples in the second pass.

The influence of blast hole samples was restricted to half the maximum number of samples in each pass.

Un-estimated blocks remained in interpreted mineralisation at the base of the model in the south: there are insufficient drill hole intercepts to allow any meaningful estimates to be made.

## 14.1.7.4 Discretisation

Discretisation is a means of correcting the krige estimate for the volume variance effect. It is used to give an indication of the size and form of the block to the kriging system. This ensures that the estimates are a good representation of the block throughout the whole block, discretisation points were  $3 \times 3 \times 3 (XYZ)$ .

## 14.1.8 Weathering and bulk density

Bulk densities for rock were assigned according to weathering zone, as shown in Table 14-8. Stope fill was assigned a density of  $1.2 \text{ t/m}^3$  as per the BOK model.

Weathering Zone	Density (t/m <sup>3</sup> )	Base boundary
Oxide	1.40	DTM derived from drill hole logging
Transitional	2.68	According to BOK model, set at 175 m RL
Fresh	2.77	n/a

#### Table 14-8: Bulk densities assigned in model.

## 14.1.9 Validation and comparison with previous estimates

Block model grades were validated by visual comparison with drill hole informing sample data and by generating swath plots in northing and elevation directions (Figure 14-4 and Figure 14-5). Swath plots show that no local bias is present, and that the estimates are not over-smoothed by Kriging. The swath plots also show some local differences between capped and uncapped grade estimates, which can be up to 1 g/t Au in northing swaths. These differences appear to be related to the presence of large numbers of very high-grade blast hole samples in the swaths. Elevation swath plots show the stark contrast in the amount of informing sample data beneath the current pit floor.

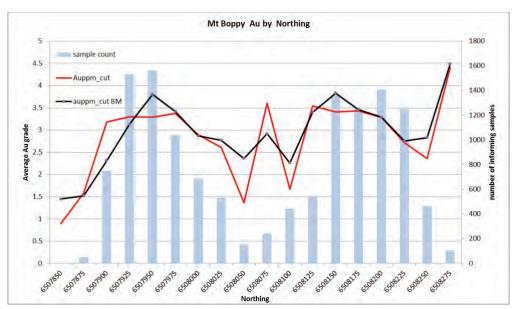


Figure 14-4: Swath plot by 25 m Northings.

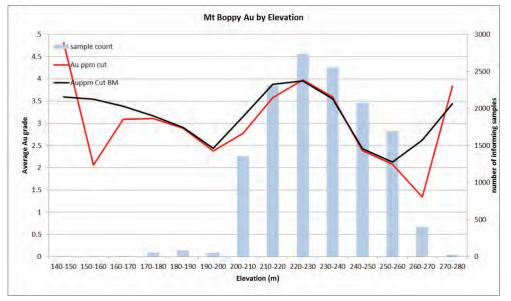


Figure 14-5. Swath plots by 10 m elevations.

## 14.1.9.1 Comparison with previous estimates

Previous resource estimates presented are an estimate of the quantity, grade and metal of the deposit that has not been verified as a current mineral resource or ore reserve, and which was prepared before MRL entered into an agreement to acquire an interest in the property that contains the deposit.

It should be noted that the tonnes and grade obtained by reporting the BOK model do not match those presented in the BOK ASX announcement of 27<sup>th</sup> November 2015 ("Mineral Resources and Ore Reserves Update"). The current resource estimate uses blast holes from November 2015, which sterilised parts of the original BOK resource model, the blast holes showed areas of no grade or low grade. This observation prompted the MBR 2016 RC drill program. For a direct comparison both models are reported as all material below the end November 2015 pit floor and within \$2600(AUD) pit shell. The BOK model was reported within the same pit shell as the MA model as is shown in

Table 14-9. Compared with the last model estimated by BOK, the MA estimates represents a decrease in tonnes and a marginally reduced grade for an overall reduction in potential gold ounces.

Model	Category	Tonnes	Grade (g/t Au)	Contained Gold (oz)
BOK November 2015	Indicated	391,300	3.36	42,220
	Inferred	1,900	3.25	160
	Total	393,200	3.36	42,380
MA September 2016	Measured	48,900	3.24	5090
	Indicated	310,800	3.22	32,140
	Inferred	24,000	3.33	2,570
	Total	383,700	3.23	34,710

Table 14-9: Comparison of BOK and MA resource models in-pit, 1 g/t Au cut-off.

# 14.1.10 Assumptions for 'reasonable prospects for eventual economic extraction'

All resources have been stated above a 1g/t Au cut-off.

The gold price is cyclical and is influenced to a degree by market speculation and technical analyses. The Gold price has steadily increased since September 2018. Given the cyclical nature of gold prices, it is not reasonable to utilise the metal price at any one point in time, as it is certain that the price will change in the future. While history has shown that it is impossible to accurately predict what the future metal prices will be, a reasonable alternative is to utilise the average metal price over a specified time period and apply a level of optimism to reflect future prices in gold over a reasonable period.

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to the following summarised assumptions as provided in Table 14-46.

- The base case considered a gold price of A\$2000/oz, the ultimate pit shell used to confine the resource considers a 1.3x factor to the base case (A\$2600).
- The cost of mining ore and waste has been consolidated against ore tonnes.
- The assumed mining cost is A\$7.05 per tonne mined
- The assumed cost of administration is A\$8.18 per tonne
- The total ore cost is A\$71.03 per tonne of ore (excluding mining and admin)
- Giving reasonable prospects for economic extraction of material above a cut-off 1 g/t Au

		-
Parameter	Unit	Value
Mill throughput	ktpa	432
General and Admin cost	A\$/t ore	\$ 8.18
Processing cost	A\$/t ore	\$ 40.00
Crushing	A\$/t ore	\$ 10.00
Trucking to Manuka Plant	A\$/t ore	\$ 19.50
Sustaining Capex	A\$/t ore	\$ 1.53
Total Ore Cost (exclude mining cost)	A\$/t ore	\$ 79.21
Average mining cost	A\$/t mined	\$ 7.05
Gold Price (1.3 x Base Case)	A\$/Oz	\$ 2,600
Average Au recovery – Ox		80%
Average Au recovery – Trans, Fresh,	74%	
Dilution	10%	
Dilution grade g/t Au		0.4
Mining Recovery		95%

Table 14-10: Cut-off grade and optimisation assumptions.

The ultimate pit shell defined during pit optimisation is used solely for assessing those portions of the block models that show "reasonable prospects for economic extraction" and do not represent an attempt to evaluate mineral reserves.

The grade tonnage chart for classified resources (depleted to November 2015: no mining has occurred since) at Mt Boppy gold project is shown in Figure 14-27.

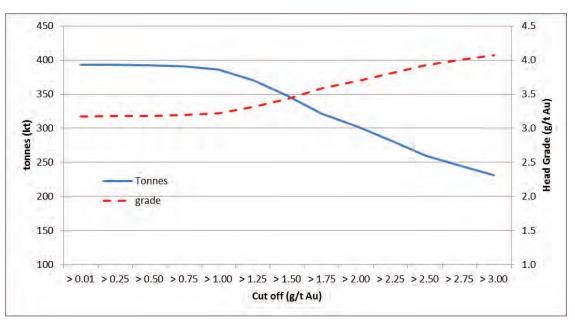


Figure 14-6. Mt Boppy gold project grade tonnage chart.

# 14.1.11 Mining and metallurgical factors

No mining factors have been applied to the in-situ grade estimates for mining dilution or loss as a result of the grade control or mining process. No metallurgical factors have been applied to the in-situ grade estimates.

# 14.1.11.1 Mining depletion

The block model utilised an attribute names "stope" and "mined" to store depletions. Blocks within backfilled stopes are designated a "1" in the stope attribute and a "0" in the mined attribute. Depleted blocks within the open pit are assigned "1" to the mined attribute.

Underground workings are digitised from level plans and mapped stopes are projected through the workings. Open pit workings were surveyed by BOK survey staff and stored as Surpac digital terrain models (DTMs) mine\_pit\_void\_eom201511. MA understands no mining was carried out at the Mt Boppy gold project after these dates.

# 14.1.11.2 Reconciliations

Production records of Mt Boppy are incomplete; historically from 1901 to 1923 the operation produced approximately 0.430 M oz of gold from 1.09 million tonnes of mined ore and an average recovered grade of 12.2 g /t. Between 1st April 2002 and 13<sup>th</sup> December 2005 Polymetals mined 503 kt at 5.29 g/t Au for 67.9 koz of gold. BOK mined 112.5 kt between May and the end of November 2015, at a recovered grade of 2.42 g/t for 8.7 koz of gold. An approximate total tonnage mined from Mt Boppy (excluding the underground, as back fill was processed as mineralisation) is 699 kt at 2.37 g/t Au for 53 koz of gold.

Within the mined pit material above 1g/t the block model reports 18 kt at 3.6 g/t Au of fill and 696 kt at 4.05 g/t for 90.6 koz of gold. The block model has been validated against raw input data, it is unclear why production grade is comparatively low.

### 14.1.11.3 Stockpiles

Previous miners stockpiled ore on the surface, at the ROM pad. Reported stockpile tonnes and grade are shown in Table 14-11. In November 2017 Manuka engaged Minstaff Survey to survey the ROM pad stockpiles. Stockpile truck tonnes and grade reported by BOK were adjusted to survey volumes using a stockpile density of 1.9. Location of the stockpiles are shown in Figure 14-7.



Figure 14-7: ROM Pad Stockpiles.

-			
Stockpile	Tonnes	Grade	Ounces
SP1 (Screened Stope Fill)	1,310	2.57	108
SP3	17,170	2.22	1226
SP5 (Stope Fill, 5, M & 5X)	21,520	2.67	1848
SP8 (HG)	13,280	3.29	1405
SP9	4,920	1.25	197
SP11	2,140	2.00	138
SP12	370	2.70	32
SP14	230	2.50	18
Reported Total	60,340	2.54	4,922

## 14.1.12 Resource classification

Based on the study herein reported, delineated mineralisation of the Mt Boppy gold project is classified as a resource according to the definitions from JORC Code standards:

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2012)

# 14.1.13 Classification and reporting

Resources were classified in accordance with the guidelines of JORC (2012), using a combination of average distance to informing samples, number of informing samples used and kriging statistics (conditional bias slope and kriging variance).

The following classification criteria were applied:

- Measured: blocks estimated in pass 1 using average sample distance of <10m and conditional bias slope >0.9 and kriging variance <0.5.
- Indicated: blocks estimated in pass 1 with conditional bias slope >0.8, plus all stope fill material
- Inferred: remaining blocks estimated with at least 6 samples
- Unclassified: blocks estimated with less than 6 samples.

Classified resources for Mount Boppy are shown in Table 14-12.

Resource Category	Tonnes	Grade g/t Au	Contained gold Troy ounces
Measured	109,200	2.85	10,010
Indicated	310,800	3.22	32,140
Inferred	24,000	3.33	2,570
Total	444,000	3.13	44,720

Table 14-13: Classified Resources for Mount Boppy, by material type, cut-off grade 1 g/t Au.

Resource Category		Tonnes	Grade (g/t Au)	Contained Gold (oz)
Measured	In-situ	48,900	3.24	5,090
	Stockpiles	60,300	2.54	4,920
Indicated	In-situ	195,500	2.98	18,780
	Backfill	115,300	3.60	13,350
Inferred	In-situ	24,400	3.31	2,570
Total		444,000	3.13	44,720

Note: discrepancies in totals occur due to rounding errors, which reflect the accuracy of the estimate.

The majority of resources within the design pit volume are classified as Indicated, as shown in the long section in Figure 14-8.

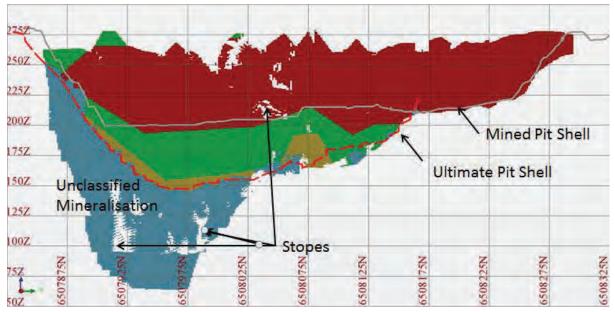


Figure 14-8: Long section coloured by resource category applied to non-stope fill material. Red: measured, Green: Indicated, Yellow: Inferred, Blue: unclassified (Exploration Target).

# 14.1.14 Discussion on factors potentially affecting materiality of resources and reserves

The following factors could potentially impact on the materiality of the mineral resource estimate: The quality of the data is suitable for resource estimates, however limited physical hard copies of certified laboratory reports and limited core chip have been sighted. No original geological logging sheets or original density data is available.

Metallurgical test work has been conducted at the Mt Boppy gold project. The resource is provided in Table 14-53 in divided by oxidation state as each sub group is likely to have different metallurgical characteristics.

Oxidation	<b>Resource Category</b>	Tonnes	Grade (g/t)	Gold (oz)
Stockpiles	measured	60,300	2.54	4,900
Stope Fill	indicated	115,300	3.60	13,300
oxide	measured	13,800	3.85	1,700
oxide	indicated	3,900	1.96	200
	measured	35,100	3.01	3,400
transitional	indicated	145,400	2.80	13,100
	inferred	9,700	2.39	700
Fresh	indicated	46,100	3.66	5,400
Flesh	inferred	14,300	3.96	1,800
Total		444,000	3.13	44,720

Table 14-14: Mt Bo	ppy gold proje	ect resources oxid	dation state.
10010 14 14. 1010 00	ppy Soid proje	.et i cooui eco oxit	auton state.

#### 14.1.15 Mineral resource estimate statement

JORC categorised Mineral Resources for the Mt Boppy gold project have been classified as measured, indicated and inferred confidence categories on a spatial, areal and zone basis and are listed in Table 14-54. The total resource is 444,000 tonnes at 3.13 g/t Au providing 44,720 ounces.

Resource Category	Material	Tonnes	Grade g/t Au	Contained gold Troy ounces
Measured	in-situ	48,900	3.24	5,090
	stockpiles	60,300	2.54	4,920
Indicated	in-situ	195,500	2.99	18,790
	stopes	115,300	3.60	13,350
Inferred	in-situ	24,000	3.33	2,570
Total		444,000	3.13	44,720

Table 14-15: Resource categories of the Mt Boppy gold project (> 1 g/t Au).

Note: Reported differences may be present due to rounding of significant figures. According to Clause 27 of the JORC Code 2012 edition: "in a public report of a Mineral Resource for a significant project for the first time, or when those estimates have materially changed from when they were last reported, a brief summary of the information in relevant sections of Table 1 must be provided". Table 1 is included in section Appendix 1 of this report and must accompany any reporting of Mineral Resources.

"The information in this report that relates to Mineral Resources is based on information compiled by Mr Ian Taylor, who is a Certified Professional by The Australasian Institute of Mining and Metallurgy and is employed by Mining Associates Pty Ltd. Mr Taylor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears".

# 14.2 MANUKA

# 14.2.1 Approach

Mineralisation at Wonawinta was interpreted using deterministic modelling techniques of hanging wall and footwall contacts from sectional interpretations. Initial considerations focused on geological contacts of weathered clays, reduced clays (hydrothermal alteration), limestone contacts (top and bottom) and basement (consisting of arkose and granite). Specific wireframes of each contact were created along with the base of oxidation.

Global statistics for all drill data were examined to determine a natural break in the distribution of silver and lead grades to be used in defining statistical domains. The dominant break for mineralisation was 10 g/t silver. Mineralisation between footwall and hanging wall, was defined using >1% lead or zinc. Lead mineralisation rarely extended higher or lower in the oxide profile than zinc or silver and zones outside 10 g/t Ag were excluded. Zinc does not have complete assay coverage in the data supplied to MA.

Due to the flat, lenticular geometry of mineralisation it was decided that a traditional 3D kriged estimate would smear silver, lead and zinc grades in an unrealistic fashion and not honour the undulating contacts. MA decided a better approach was to unfold the undulations and perform the estimation in 2D space. Details of the unfolding philosophy are described in Section 14.2.8.2. Calcium, iron and sulphur were estimated in 3D space using ordinary kriging: they have less data, do not follow the silver-lead-zinc mineralisation, and are more affected by rock type or weathering. Calcium, iron and sulphur do not have complete assay coverage and are considered secondary elements.

Lithological contacts, base of oxidation and footwall and hanging wall mineralisation contacts were created by gridded interpolation techniques. Weathering profiles were used to assign oxidation state, and lithology and oxidation state were used to assign bulk density.

All drilling excluding blast holes were used to inform lithological contacts and only RC (including RC grade control) and DD data were used to inform the estimate.

# 14.2.2 Supplied data

MA was supplied with an MS Access format drill hole database named ww\_db.accdb, with the table structure as shown in Table 14-16.

Table Name	Description	Records
assay	Includes Ag, Ca, Co, Cu, Fe, Hg, Mg, Mn, Pb, S, Zn	79120
domain	Lithological Code used in previous resource estimate	19562
collar	Collar information associated with drill type and location	12965
lith	Logged lithology	11942
Lith_ox_code	CCR determined lith-ox code (oxide clay, oxide limestone, sulphide clay, sulphide limestone & other	16344
survey	Down hole survey data	12870

Table 14-17 summarises drilling and sampling statistics grouped by drill hole type within the area of resource estimates but does not include production blast hole drilling.

Table 14-17: Summar	of drilling in	resource area b	drill type
Table 14-17. Summar	y or urning in	i lesui ce al ea b	y unin type.

Drill hole type	Number of holes	Metres drilled	Number of samples	Metres sampled
Aircore	70	1571.1	659	1504.8
DD	11	1333.6	722	1198.29
MRC	210	3199	2145	2144.5
PERC	24	2278	295	650
RAB	224	4080.5	732	1507.4
RC	1355	57494	37326	40083
Total	1894	69956.2	41879	47087.99

## 14.2.3 Topography

A detailed digital topographic surface was created by CCR of the original surface features pre-mining. Detailed topography (topo\_2010.dtm) is 3.4 km wide and covers 6429500mN to 6435000mN. The surface was projected 2 km to the north and 250 m to the south to cover the entire study area. Drill hole collars were used to provide "tie in" points in the extrapolated areas. Mineralisation below the projected surface does not outcrop and is generally considered to have insufficient data to classify as mineral resources.

## 14.2.3.1 As-built pit surfaces

Pit Pick-ups on 3May 2015 for Manuka Pit and 31 March 2014 for Boundary Pit, which includes the box cut into Boundary South Pit area were used to define the mined proportions of the block model. The mined-out areas are flagged in the block model (model attribute rescat = 5). Waste dumps, tails Dams and ROM pad were picked up on 9 April 2015 (model attribute rescat = 6).

# 14.2.4 Dimensions

Known mineralisation at Wonawinta extends along strike for approximately 8 km in a NNW direction (335°). At its widest part, mineralisation extends some 400 m down-dip to the west and has not been completely closed off in this direction.

Mineralisation is variably enriched along the defined mineralised zone and includes the existing Manuka and Boundary pits. The plus 40 g/t Ag mineralisation envelope shows varying widths from thin 30 m to extensive 750 m and averages approximately 400 m.

Thickness of the mineralised envelope ranges from a minimum of 2 m to a maximum of 32 m and is dominantly between 8 m and 10 m thick. Mineralisation does not outcrop and is overlain by unmineralised weathered clays ranging from 2 m to 80 m thick and averaging around 36 m.

# **14.2.5** Geological interpretation

Silver-lead-zinc mineralisation at Wonawinta has been interpreted as an oxidised (supergeneenriched) Mississippi-Valley Type (MVT) deposit. The overall regional geological setting, host rocks and geometry of mineralisation fit this model. There is evidence in fresh samples for lowtemperature marcasite and colloform cavity-fill textures in sphalerite typical of MVT mineralisation. Sulphur isotope values indicate a basinal brine sulphur source, with some syn-diagenetic sedimentary pyrite.

The mineralised envelope at Wonawinta is broadly stratiform and stratabound, straddling the contact between a lower limestone unit and overlying siltstone/claystone. Upper and lower contacts are highly irregular, reflecting a complex history of primary mineralisation overprinted by weathering and supergene enrichment. Mineralisation is roughly sub-parallel to stratigraphy and is generally flat lying to gently (25°-30°) west dipping and south plunging, although gently east-dipping parts have been defined on the eastern limb of the Wonawinta Anticline (section 7.3.3).

Mineralised domains used for the current study were interpreted by MA from two metre down-hole composited silver grades. Mineralisation is interpreted to comprise a main, generally north-south trending zone, (Figure 14-10: Manuka, Boundary and Boundary South) and two comparatively small subsidiary zones to the east designated as Pothole and Belah respectively.

## 14.2.5.1 Lithology contact model

The main lithological contacts in the Lower Winduck Group that could be modelled were as follows;

- Top granite
- Top arkose/base limestone (in many drill holes arkose is missing, and limestone lies directly on granite)
- Top limestone/base clay

Contacts were extracted from the drill hole database using available lithological logging codes. Most drill holes were too short to penetrate the entire lower Winduck Group succession and the top granite and base limestone contacts are only constrained by a few intercepts away from the Wonawinta deposits. The top limestone/base clay contact is highly irregular and in many cases is reentrant in drill holes (limestone/dolomite logged above clay). The contact as modelled reflects where limestone/dolomite becomes dominant in each drill hole, so logged clay may occur below it.

Due to the irregular spacing between drill hole intercepts, a simple triangulation using only intercept points was not appropriate for generating lithological contact surfaces. Instead, interpolated surfaces were created using a minimum curvature gridding technique and then modified to ensure they passed exactly through drill intercepts.

Surfaces were manually checked to ensure the contacts had not been interpolated as crossing drill holes that had not actually intercepted then: in this case, the process was repeated with additional points inserted to keep the interpolated surface at the correct z value.

# 14.2.5.2 Base of oxidation

A surface representing base of oxidation was also created using the same methodology as applied to lithological contacts. Weathering was not consistently logged or recorded in the lithology table of the drill hole database. However, the "lithox" table contained coded intervals for oxide clay (1), oxide limestone (2), sulphide clay (3) and sulphide limestone (4) that could be used to extract interpreted base of oxide points from the drill hole database.

# 14.2.5.3 Mineralised envelope

A mineralised envelope was defined at a cut-off grade of 10 g/t Ag, which represents a natural break in grade distribution of raw samples on a log-probability plot (Figure 14-9). Footwall and hanging wall points were defined by tagging assay intervals with a composite grade greater than 10 g/t that did not include any edge dilution less than 9 g/t. Contacts were extracted from the drill hole database and gridded surfaces created using inverse distance cubed (ID<sup>3</sup>) interpolation. The original data points were added back into the ID<sup>3</sup> surface, ensuring surfaces were snapped to the drill holes.

Lithology contacts and base of oxidation DTM's were used to assign oxidation state and both lithology and oxidation state were used to assign bulk density.

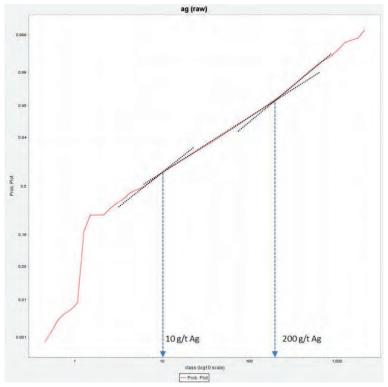


Figure 14-9: Log probability plot of raw (un-composited) silver grades. Breaks at 10 g/t Ag and 200 g/t Ag indicated. Values above the 200 g/t Ag are too scattered to be domained separately.

## 14.2.6 Data preparation and statistical analysis

Statistical analysis of grade data was principally carried out using Surpac software. Variography was conducted within Snowdens Supervisor software. Prior to statistical analysis, grade domaining was undertaken to delineate homogeneous areas of grade data. Statistical analysis does not consider the spatial relationships of the data.

The purpose of statistical analysis is to define the main characteristics of the underlying grade distribution to assist with the geological and grade modelling work. This process is important as the statistics of the individual sample populations can influence how the grade data is treated and the application of grade estimation techniques.

# 14.2.6.1 Drill hole spacing

Drill hole data spacing is variable throughout the areas assessed and ranges from broad first-pass exploration (250 m x 50 m regionally) to RC grade control drilling ( $10 \times 10 \text{ m}$ ) in parts of Manuka and Boundary pits. Areas adjacent to the pits were typically drilled on a 50 m x 50 m spacing.

# 14.2.6.2 Domains and stationarity

A domain is a three-dimensional volume that delineates the spatial limits of a single grade population, has a single orientation of grade continuity, is geologically homogeneous and has statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to the domains include structural features, weathering, mineralisation halos and lithology.

Due to the tight geological domaining, stationarity concerns are minimised with the resource estimation as each domain contains only one population of grade data.

Mineralised domains shown in Figure 14-10 were defined as follows:

- Domain 1 "Blue Mountain" represents generally broadly sampled, NNW trending mineralisation south of an interpreted regional fault orientated at 050° and centred on approximately 6,430,650 mN.
- Domain 2 "Boundary" represents north-south trending mineralisation in the Boundary area between approximately 6,430,650 mN and a second interpreted fault trending 050° centred at 6,432,200 mN. This domain represents most mineralisation mined to date at the Boundary pit and encompasses an area of 10 m x 10 m RC grade control drilling conducted during 2013 to the south of Boundary.
- Domain 3 "Manuka" strikes north-south between 6,432,200 mN and the dominant north east trending Bimble Domain at 6,433,500 mN. It represents mineralisation in the Manuka area including all mineralisation mined from Manuka and the broadly spaced exploration drilling to the south of Manuka.
- Domain 4 "Pothole" represents a comparatively small area of apparently northwest striking mineralisation to the east of the main zone at Manuka.
- Domain 5 "Bimble" is north of Manuka pit and strikes in a northeast direction. Probably primarily controlled by a northeast-trending structure.
- Domain 6 "Belah" is a north-south trending zone in the northeast of the project area.
- Domain 7 "Exploration Potential" represents the north-northwest trending northern portion of the main mineralised zone to the north of 6,434,200 mN and is locally only very broadly sampled.

Within each domain mineralisation was assessed above and below base of oxidation, which was considered a hard boundary for Ag, Pb and Zn. Boundaries between domains were considered soft boundaries as they are generally in poorly drilled areas.

Iron was estimated within the Boundary and Manuka domains constrained by base of oxidation with specific estimation parameters. For the remainder of the domains global oxide and fresh estimation parameters were selected. Sulphur was estimated globally within the resource using the oxidation profile as a hard boundary. Calcium used the top of limestone as a hard boundary; specific parameters were obtained for Boundary and Manuka domains in clay and limestone. Specific

variograms were obtainable for Pothole clay and Belah limestone. Remaining domains were estimated with global variograms for Ca within clay and limestone.

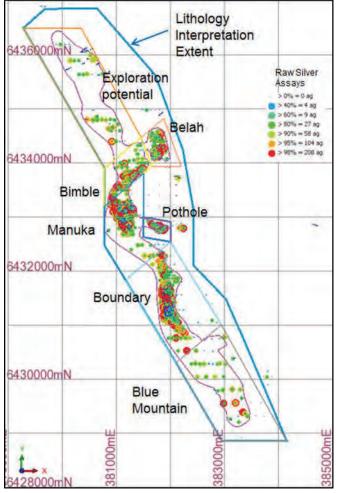


Figure 14-10: Resource domains and drill assays at Wonawinta.

# 14.2.6.3 Compositing

The objective of compositing data is to obtain an even representation of sample grades and to eliminate any bias due to sample length. 89% of all RC and core samples at Wonawinta are 1 m, 2% of samples are 2 m and 1% of the samples are 4 m in length. 4 m samples are exploration composited samples and are generally unmineralised or weakly mineralised.

Manuka was mined by open pit utilising 5 m benches with 2.5 m flitches with a minimum selectivity of 5 m x 5 m by 2.5 m (XYZ). The majority of drilling is vertical and flitch height would be likely to continue at 2.5 m. To reduce raw sample variance slightly and eliminate splitting of raw samples, assay data was composited to two metres for grade interpolation into the block model.

Surpac's "Best Fit" was selected as the compositing method, with a 75% threshold for allowable short composites. The best fit method reduces the number of rejected short samples by compositing to variable, but equal lengths within a contiguous drill hole intercept. This ensures the resulting composite length is as close as possible to the nominated composite length. The resulting Surpac string files were used for statistical and variography analysis in Supervisor.

### 14.2.6.4 Univariate statistics

Univariate statistics for silver are presented in Table 14-18, lead in Table 14-19, zinc in Table 14-20, calcium in Table 14-21, iron in Table 14-22 and sulphur in Table 14-23. Although not estimated, mercury (Table 14-24) has been included in the summary statistics due to its environmental significance. Manuka and Boundary have the most assay data due to the tight spaced RC grade control drilling undertaken in the excavated pits. Table 14-25 shows the relative number of additional elements assayed for that were incorporated into the estimate. 91% of all assays were analysed for Lead, 53% for zinc, of the secondary elements 95% were assayed for calcium, 97% for iron, 41% were assayed for sulphur and 33% were assayed for mercury.

Chartistia	Blue	Describerto	B.4 - under	Dissible	Dethele	Delek	Dumble
Statistic	Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	132	4072	3823	638	115.00	409	184
Minimum	1.5	1.0	2.0	3.0	1.9	3.0	1.0
Maximum	158.0	1960.0	2042.5	386.0	319.0	442.0	202.6
Mean	26.2	49.9	58.1	47.5	40.6	45.1	30.9
Standard deviation	23.5	83.5	95.3	60.1	58.4	56.9	32.9
Variance	551	6973	9074	3610	3407	3239	1085
25 percentile	12.0	14.0	15.0	13.0	10.4	12.9	11.0
50 percentile	19.2	25.5	28.6	25.1	18.7	21.5	17.3
75 percentile	32.1	55.5	61.7	54.4	39.9	56.7	39.1
95 percentile	72.7	171.5	214.4	164.3	155.9	151.8	99.7
99 percentile	110.2	294.0	351.6	280.2	263.3	228.0	136.2
CV	0.9	1.7	1.6	1.3	1.4	1.3	1.1

Table 14-18: Silver (2m composite) statistics.

#### Table 14-19: Lead (2m composite) statistics.

Statistic	Boundary South	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	132	4072	3005	638	115	409	184
Minimum	0.02	0.01	0.01	0.02	0.03	0.01	0.00
Maximum	2.64	8.37	9.49	10.83	5.46	11.88	6.81
Mean	0.37	0.68	0.86	0.90	0.58	1.10	0.45
Standard deviation	0.39	0.87	1.11	1.10	0.77	1.62	0.88
Variance	0.15	0.75	1.24	1.22	0.60	2.62	0.78
25 percentile	0.14	0.16	0.19	0.25	0.12	0.21	0.09
50 percentile	0.24	0.37	0.44	0.52	0.30	0.46	0.22
75 percentile	0.46	0.88	1.08	1.08	0.69	1.29	0.49
95 percentile	1.20	2.40	3.13	2.98	2.04	3.56	1.26
99 percentile	1.57	3.78	4.86	4.89	2.91	7.04	3.61
CV	1.07	1.27	1.29	1.23	1.34	1.47	1.96

Statistic	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	118	1503	2512	294	115	284	184
Minimum	0.01	0.00	0.00	0.01	0.00	0.00	0.01
Maximum	8.35	5.43	11.48	12.62	3.70	8.83	22.03
Mean	0.41	0.35	0.49	0.85	0.40	0.31	1.46
Standard deviation	0.97	0.48	0.75	1.60	0.77	0.70	3.25
Variance	0.93	0.23	0.57	2.56	0.60	0.49	10.56
25 percentile	0.10	0.06	0.08	0.07	0.04	0.02	0.14
50 percentile	0.19	0.18	0.24	0.28	0.08	0.07	0.39
75 percentile	0.34	0.42	0.57	0.94	0.21	0.36	1.06
95 percentile	0.88	1.37	1.89	3.19	2.33	1.25	8.50
99 percentile	4.56	2.03	3.17	6.67	3.20	2.58	14.06
CV	2.36	1.38	1.54	1.89	1.95	2.25	2.23

# Table 14-20: Zinc (2m composite) statistics.

# Table 14-21: Calcium (2m composite) statistics.

Statistic	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	98	3904	3699	540	115	363	184
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	23.0	28.1	25.0	23.4	13.4	20.3	25.0
Mean	7.8	7.6	9.0	3.5	0.8	2.6	5.0
Standard deviation	7.4	7.8	7.6	6.3	2.1	5.4	7.3
Variance	54.4	60.1	58.2	39.6	4.5	28.9	52.7
25 percentile	0.4	0.1	0.2	0.1	0.1	0.1	0.0
50 percentile	6.2	4.2	11.5	0.1	0.1	0.1	0.1
75 percentile	15.2	15.7	16.3	1.5	0.3	0.6	10.8
95 percentile	18.3	18.9	18.5	17.4	5.5	16.6	18.4
99 percentile	18.8	21.0	19.8	19.0	9.3	18.1	22.2
CV	0.9	1.0	0.8	1.8	2.6	2.0	1.5

### Table 14-22: Iron (2m composite) statistics.

Statistic	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	118	3940	3765	591	115	385	184
Minimum	0.1	0.0	0.0	0.0	0.1	0.0	0.1
Maximum	28.5	33.1	40.6	34.3	22.7	37.7	32.8
Mean	5.7	5.8	5.0	3.5	3.5	4.2	7.0
Standard deviation	4.9	4.6	4.8	4.2	5.1	6.2	6.3
Variance	24.4	21.0	23.0	17.7	25.6	38.2	39.1
25 percentile	2.5	2.9	2.7	1.0	0.4	0.4	3.0
50 percentile	4.5	4.6	3.9	2.3	1.1	1.8	4.8
75 percentile	7.2	7.1	5.3	3.9	3.4	4.8	8.5
95 percentile	15.9	14.9	14.7	11.5	15.1	16.8	20.2
99 percentile	21.5	21.0	23.5	17.6	18.8	26.5	25.4
CV	0.9	0.8	1.0	1.2	1.5	1.5	0.9

#### Table 14-23: Sulphur (2m composite) statistics.

Statistic	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	0	1943	1143	517	0	245	8
Minimum		0.0	0.0	0.0		0.0	0.0
Maximum		18.1	5.6	21.5		7.0	9.2
Mean		0.5	0.2	1.2		0.3	2.3
Standard deviation		1.4	0.4	2.2		0.9	4.2
Variance		2.0	0.2	5.0		0.9	17.8
25 percentile		0.0	0.0	0.0		0.0	0.0
50 percentile		0.1	0.1	0.2		0.0	0.0
75 percentile		0.4	0.2	1.2		0.1	2.3
95 percentile		2.5	1.0	5.2		1.9	9.2
99 percentile		5.3	1.7	8.1		3.9	9.2
CV		2.6	1.8	1.9		3.0	1.8

#### Table 14-24: Mercury (2m composite) statistics.

Statistic	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
Samples	0	572	2376	33	69.00	50	23
Minimum		0.0	0.0	0.0	1.0	0.0	2.0
Maximum		320.5	292.0	42.5	33.5	36.0	320.2
Mean		11.9	6.1	10.7	5.0	9.6	85.1
Standard deviation		21.4	15.5	11.3	5.3	8.8	95.9
Variance		460.0	240.4	127.2	27.6	76.7	9195.3
25 percentile		2.5	0.0	3.1	1.5	3.2	4.0
50 percentile		6.0	1.5	6.0	3.2	6.5	62.0
75 percentile		13.9	5.5	16.8	5.5	12.9	113.8
95 percentile		38.7	26.0	33.1	14.9	28.5	303.0
99 percentile		69.5	49.0	39.9	16.1	34.1	318.2
CV		1.8	2.6	1.0	1.1	0.9	1.1

#### Table 14-25. Elemental analysis relative to the number of silver assays.

Element relative to silver	Blue Mountain	Boundary	Manuka	Bimble	Pothole	Belah	Bumble
# Ag assays	132	4072	3823	638	115	409	184
Pb	100%	100%	79%	100%	100%	100%	100%
Zn	89%	37%	66%	46%	100%	69%	100%
Са	74%	96%	97%	85%	100%	89%	100%
Fe	89%	97%	98%	93%	100%	94%	100%
S	0%	48%	30%	81%	0%	60%	4%
Hg	0%	14%	62%	5%	60%	12%	13%

## 14.2.6.5 Grade capping

Capping reduces the grade of outlier samples to a value that is representative of the surrounding grade distribution. This process minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value. Sample grades are not removed from the database if grade capping is applied. Detailed grade capping analysis used histograms, log probability plots, and descriptive statistics to assess how the mean, CV, and metal content changes with varying grade caps. Detailed results for

the Wonawinta deposits are presented in Table 14-26 (Silver), Table 14-27 (Lead), Table 14-28 (Zinc), Table 14-29 (Calcium), Table 14-30 (Iron) and Table 14-31 (sulphur). Various grade distributions were considered, and domains were assessed in conjunction with neighbouring domains and capped at similar values where warranted, such as Calcium domains are all capped at 25% Ca. Grade capping assessment was not carried out on oxidised and fresh data separately.

	Uncapp	ed comp	osite data		Capped co		Grade			
Domain	Count	Mean	Maximum	cv	# Capped	Mean	Сар	cv	% Cap	%Δ
Blue Mountain	132	26.2	158	0.9	4	25.4	92	0.8	3.03%	-3%
Boundary	4072	49.9	1960	1.7	82	46.4	270	1.2	2.01%	-7%
Manuka	3823	58.1	2043	1.6	77	54.1	321	1.2	2.01%	-7%
Bimble	638	47.5	386	1.3	16	45.6	232	1.1	2.51%	-4%
Pothole	115	40.6	319	1.4	3	39.6	249	1.4	2.61%	-2%
Belah	409	45.1	442	1.3	9	43.2	216	1.1	2.20%	-4%
Bumble	184	30.9	203	1.1	10	29.6	106	1.0	5.43%	-4%

#### Table 14-26: Silver grade caps.

#### Table 14-27: Lead grade caps.

	Uncapp	ed comp	osite data		Capped co	mposite	data		Grade		
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Сар	CV	% Cap	%Δ	
Blue Mountain	132	0.4	3	1.1	2	0.4	1.57	1.0	1.52%	-3%	
Boundary	4072	0.7	8	1.3	82	0.7	3.45	1.1	2.01%	-3%	
Manuka	3005	0.9	9	1.3	75	0.8	4.17	1.2	2.50%	-4%	
Bimble	638	0.9	11	1.2	10	0.9	4.89	1.1	1.57%	-2%	
Pothole	115	0.6	5	1.3	3	0.5	2.63	1.2	2.61%	-5%	
Belah	409	1.1	12	1.5	11	1.0	5.87	1.3	2.69%	-6%	
Bumble	184	0.5	7	2.0	5	0.4	2.52	1.2	2.72%	-15%	

#### Table 14-28: Zinc grade caps.

	Uncapp	ed comp	osite data		Capped co	mposite	data		Grade		
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Сар	CV	% Cap	%Δ	
Blue Mountain	118	0.4	8	2.4	2	0.4	4.6	1.9	1.69%	-9%	
Boundary	1503	0.4	5	1.4	38	0.3	1.7	1.2	2.53%	-4%	
Manuka	2512	0.5	11	1.5	38	0.5	3.2	1.3	1.51%	-4%	
Bimble	294	0.8	13	1.9	6	0.8	5.4	1.5	2.04%	-10%	
Pothole	115	0.4	4	1.9	3	0.4	3.1	1.9	2.61%	-2%	
Belah	284	0.3	9	2.3	6	0.3	2.4	1.7	2.11%	-9%	
Bumble	184	1.5	22	2.2	10	1.4	13.7	2.1	5.43%	-5%	

Table 1	14-29:	Calcium	grade	caps.
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	Uncapp	oed com	posite data		Capped co	mposite	data		Grade		
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Сар	CV	% Cap	%Δ	
Blue Mountain	98	7.8	23	0.9	1	7.8	23	0.9	1.02%	0%	
Boundary	3904	7.6	28	1.0	4	7.6	27	1.0	0.10%	0%	
Manuka	3699	9.0	25	0.8	4	9.0	22	0.8	0.11%	0%	
Bimble	540	3.5	23	1.8	1	3.5	23	1.8	0.19%	0%	
Pothole	115	0.8	13	2.6	1	0.8	13	2.6	0.87%	0%	
Belah	363	2.6	20	2.0	1	2.6	20	2.0	0.28%	0%	
Bumble	184	5.0	25	1.5	1	5.0	25	1.5	0.54%	0%	

# all calcium domains were capped at 25% Ca.

#### Table 14-30: Iron grade caps.

	Uncapp	oed com	posite data		Capped composite data				Grade	
Domain	Count	Mean	Maximum	cv	# Capped	Mean	Сар	cv	% Cap	%Δ
Blue Mountain	118	5.7	28	0.9	3	5.6	20	0.8	2.54%	-2%
Boundary	3940	5.8	33	0.8	99	5.7	19	0.7	2.51%	-2%
Manuka	3765	5.0	41	1.0	93	4.8	19	0.8	2.47%	-3%
Bimble	591	3.5	34	1.2	6	3.4	19	1.1	1.02%	-3%
Pothole	115	3.5	23	1.5	2	3.4	19	1.4	1.74%	-1%
Belah	385	4.2	38	1.5	8	4.1	26	1.4	2.08%	-3%
Bumble	184	7.0	33	0.9	10	6.9	23	0.8	5.43%	-2%

#### Table 14-31. Sulphur grade caps.

	Unc	apped c	omposite da	Capped co	omposite	e data		Grade		
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Сар	CV	% Cap	%Δ
Blue Mountain	2	0.0	0	#NA	0	0.0	5	#NA	0.00%	#NA
Boundary	1943	0.5	18	2.6	30	0.5	5	2.0	1.54%	-12%
Manuka	1143	0.2	6	1.8	12	0.2	2	1.6	1.05%	-5%
Bimble	517	1.2	21	1.9	13	1.1	7	1.6	2.51%	-8%
Pothole	2	0.0	0	#NA	0	0.0	2	#NA	0.00%	#NA
Belah	245	0.3	7	3.0	7	0.3	4	2.7	2.86%	-8%
Bumble	8	2.3	9	1.8	0	2.3	9	1.8	0.00%	0%

# 14.2.7 Variography

Semi-variogram analysis was undertaken for individual elements within each major grade domain that contained sufficient data. Three dimensional (3-D) semi-variograms were generated using three orthogonal principal directions.

Variography was undertaken for silver within the 10 g/t silver grade domain above and below the base of oxidation. Variogram analysis was conducted in unfolded space or folded space as appropriate to the estimation technique applied to each domain.

The variogram modelling process using variables is described as follows:

- Experimental variograms with small lags orientated down hole to aid interpretation of the nugget effect.
- Generate a variogram map, computing 18 directions in the reference plane and normal to the reference plane.
- Directional variogram with 2 directions in reference plane (down dip) oriented parallel to the average orientation of the wireframe models of each domain, plus variogram normal to the plane (across strike).

Transformed variograms (log and normal scores) were cross checked with the normal variograms in a bid to elucidate subtle structures. Where normal score transformed variograms were chosen as significantly more clear than normal (un-transformed) variograms the variogram models were back transformed.

Specific variograms relating to silver were able to be generated for oxide mineralisation within Boundary, Manuka, Bimble and Belah. Normal variogram model parameters for silver are presented in Table 14-32. Silver mineralisation at Pothole was estimated using an average of the silver variograms, Blue Mountain utilised the variogram for Boundary, and the northern area, Bumble, used the Manuka variogram. Orientations for variograms (Table 14-35) were either modelled or adopted based on the general strike of the mineralisation at the specific deposit.

Lead variograms were more elusive with only oxide variograms able to be interpreted from Boundary and Manuka. Table 14-33 presents the variograms assigned to the various domains. Only an omnidirectional variogram could be modelled for zinc within the oxide profile at Boundary, (Table 14-34) and all zinc domains used this variogram.

No domains had enough close spaced drilling within fresh material to generate separate variograms. Oxide variograms were used to in kriging elements into the fresh domains.

Doma	ains	Variog	ram Par	ameter	s				1 <sup>st</sup> an ratios	isotropic	2nd a ratios	anisotropic
#	Name	C0	C1	R1	C2	R2	C3	R3	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
	Boundary and											
1,2	Blue Mountain	0.39	0.29	30	0.08	65	0.14	300	1	1	2.4	2.4
3	Manuka	0.32	0.42	25	0.26	250	-	-	1	1	3.18	3.18
4	Pothole	0.37	0.42	33.8	0.21	91.3	-	-	1	1	2	2
5	Bimble	0.32	0.42	25	0.26	50	-	-	1	1	1.2	1.25
6	Belah	0.44	0.56	55	-	-	-	-	1.1	1.2	1	1
7	Bumble	0.32	0.42	25	0.26	250	-	-	1	1	3.18	3.18

Table	14-32:	Variogram	parameters -	silver.
TUDIC	T- 25.	Variobrani	parameters	3114 C11

	Domain		١	/ariogra	ım Para	meters	1st an ratios	isotropic	2nd anisotropic ratios			
#	Name	С0	C1	R1	C2	R2	C3	R3	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
	Boundary and											
1,2	Blue Mountain	0.36	0.29	28	0.22	90	0.14	400	1.4	1.4	2	5
3	Manuka	0.5	0.3	20	0.2	275	-	-	1	1	2.75	7.97
4	Pothole	0.36	0.29	28	0.22	90	0.14	400	1.4	1.4	2	5
5,6	Bimble	0.36	0.29	28	0.22	90	0.14	400	1.4	1.4	2	5
7	Bumble	0.5	0.3	20	0.2	275	-	-	1	1	2.75	7.97

Table 14-33: Variogram parameters – lead.

Zinc variograms were very poorly developed with only an omni-directional oxide zinc variogram generated for Boundary (Table 14-34). This variogram was used for all Zinc Domains.

	Domain		Variog	ram Parai	meters		1st anisotrop	pic ratios	2nd anisotropic ratios	
#	Name	CO	C1	R1	C2	R2	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
All	All	0.35	0.35	35	0.3	200	1	1	:	1 1

### Table 14-34: Variogram parameters – zinc.

#### Table 14-35: Variogram orientations in unfolded space.

Element	Domain #	Domain name	Bearing	Plunge	Dip
Silver	1,2	Boundary and Blue Mountain	340	0	80
	3	Manuka	335	2.6	-10
	4	Pothole	280	0	0
	5	Bimble	50	0	0
	6	Belah	50	0	0
	7	Bumble	340	0	80
Lead	1,2	Boundary and Blue Mountain	330	0	0
	3	Manuka	350	0	0
	4	Pothole	280	0	0
	5,6	Bimble and Belah	50	0	0
	7	Bumble	350	0	0
Zinc	All	All		Omni	-Directional

Secondary elements were analysed in 3D space without unfolding. The philosophy was to generate variograms for the entire population within the significant weathering profile or lithological constraints as appropriate. The resulting variogram parameters for the secondary elements are presented in Table 14-36. Where close spaced drilling was available more detailed variograms could be generated for specific domains and lithological or weathering constraints as appropriate (Table 14-37 Calcium, Table 14-38 Iron).

D	omain		Variog	ram Parar	neters	1st ani ratios	sotropic	2nd anisotropic ratios		
Element	Unit	С0	C1	R1	C2	R2	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
Calcium	Clay	0.1	0.15	35.5	0.75	270	1.00	3.55	1.00	18.50
Calcium	Dolostone	0.2	0.22	35	0.22	110	1.00	1.75	1.00	1.47
Iron	Oxide	0.3	0.38	30	0.32	200	1.50	5.45	2.50	9.52
Iron	Fresh	0.5	0.5	300	0	0	1.66	7.50	1.66	7.50
Sulphur	Oxide	0.15	0.35	21.5	0.5	175	1.17	2.10	1.55	4.38
Sulphur	Fresh	0.1	0.9	150	0	0	2.00	4.00	2.00	4.00

Table 14-36: Variograms for secondary elements (global).

#### Table 14-37: Variogram parameters for calcium domains.

Domain	Lithological		Variogr	am Para	meters		1st a ratios	nisotropic	2nd a ratios	nisotropic
Name	Unit	CO	C1	R1	C2	R2	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
Boundary	Clay	0.1	0.9	290	0	0	1.45	5.80	1.45	5.80
Manuka	Clay	0.1	0.48	80	0.42	280	1.78	8.00	1.75	10.37
Pothole	Clay	0.2	0.8	135	0	0	1.93	3.86	1.93	3.86
Boundary	Dolostone	0.15	0.63	30	0.22	150	1.50	2.00	1.67	2.50
Manuka	Dolostone	0.15	0.35	51.5	0.18	150	2.55	2.55	1.67	2.50
Belah	Dolostone	0.2	0.8	155	0	0	1.03	1.03	1.00	1.00

#### Table 14-38: Variogram parameters for iron domains.

Domain	Weathering			Variog	ram Para	ameters	;		1st a ratios	nisotropic	2nd ani ratios	isotropic
Name	Profile	С0	C1	R1	C2	R2	C3	R3	Semi major Factor	Minor Factor	Semi major Factor	Minor Factor
Boundary	Oxide	0.13	0.4	16	0.33	74	0.14	160	1.0	2.0	1.6	3.2
Boundary	Fresh	0.2	0.42	32	0.38	325	0	0	1.0	1.0	1.4	3.3
Manuka	Oxide	0.14	0.39	28	0.33	220	0.14	320	1.0	1.4	1.6	4.3
Manuka	Fresh	0.13	0.87	250	0	0	0	0	3.6	12.5	1.0	1.0

## 14.2.8 Grade estimation

Kriging was used to estimate grade into parent blocks, with estimation constrained by lithology, mineralisation and base of oxidation wireframes. Ordinary kriging estimates grades into large parent blocks, with sub-blocks utilised to accurately represent volumes. Results of the kriged estimation were validated against raw informing data and estimates by nearest neighbour and inverse distance weighting.

## 14.2.8.1 Methodology

Ordinary kriging ("OK") is a robust grade estimation technique and is a globally unbiased estimator that produces the least error variance for grade estimates. Kriging uses grade continuity information from semi-variograms to estimate grades into large blocks. It is also able to accommodate

anisotropy within the data and incorporate this anisotropy in block estimates. Another important feature of kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform. Kriging forms a sound basis for generating block grade estimates at a scale which is appropriate to the sample density.

The mineralisation envelope was unfolded and Ag, Pb and Zn estimated in unfolded space with the secondary elements estimated "in-situ" in folded space (3D OK).

Inverse distance and nearest neighbour estimates were run for cross validation checks within domains.

# 14.2.8.2 Folding and unfolding

Resource estimation for the dominant mineralised zone was done in 'unfolded' space, which has the following advantages:

- Mineralisation profile characteristics (both horizontally and vertically) are preserved irrespective of thickness.
- Constrains informing samples for estimation to the zone required and improves stationarity/domaining concerns.
- Converts real RL to a relative position.

Unfolding is an advancement of the 2D gridded model technique. A 2D gridded model is often the preferred method of estimation in laterally extensive deposits. Unfolding is a technique designed to allow more accurate analysis of grade continuity within an undulating or folded mineralisation by honouring variations in the third dimension and is well suited to an MVT such as the Wonawinta silver-lead-zinc deposit.

The process is summarised in the following steps:

- The spatial position of the blocks to be estimated and the informing samples is determined relative to the footwall and hanging wall of mineralisation. Original positions are shown in the top image for each example in Figure 14-11.
- Midpoints of the blocks and informing samples are moved to a relative position, strictly vertically, but with the lodes still stacked one above the other. This is shown in the lower image in Figure 14-12. The absolute thickness of each lode therefore becomes a relative thickness.
- Carry out variography analyses and perform interpolations into blocks.
- Back-transform the blocks to their original positions.

The relative method of unfolding is used at Manuka as the vertical variation in the profile is controlled by the clay/limestone stratigraphic contact and oxidation state and is largely independent of thickness. Relative unfolding proportionally matches up the hanging wall, middle and footwall of each lode even if there are rapid changes in thickness. The conversion of the real RL to a relative position of both the informing samples and the block centroids honours both the original sample support and block variance, thus maintaining kriging efficiency. The result is to maintain the profile as seen in the drill data in the resultant 3D block model, undulating footwall contact and the detail within the zones.

250Z	50m East											
2007.			Rento	a d		<b>9</b> 1			ere/SI		Informing Composites Silver (g/t)	Block Model Silver (g/t)
-37302.0										-	> 0.1 ag	0.1 -> 10
											> 10 ag	10 -> 20
150Z											> 20 ag	20 -> 30
7	0E	OE	0E	BOOE	OE	100E	ISOE	200E	SOF	0E	> 30 ag	30 -> 60
1	380800E	380900E	95	00	1050188	10	15	20	25	30	> 60 ag	60 -> 120
1007	380	380	380	38100	381	38	301	381	381	38	> 120 ag	120 -> 999

Figure 14-11: Manuka folded block model and informing samples (6,433,040 mN±10m).

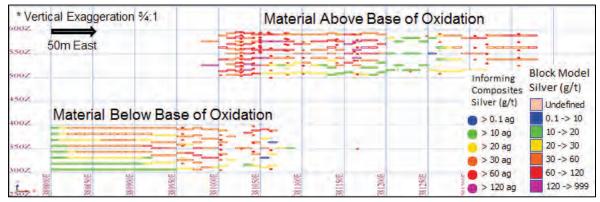


Figure 14-12: Manuka unfolded model and informing samples (6,433,040 mN±10m).

# 14.2.8.3 Block model

Regional geology is dominantly north-south striking, negating the need for a rotated block model. Parent block size was selected to best represent the available data, the data characteristics (variability as defined by variography) and the envisaged mining practises. Block model dimensions are shown in Table 14-39. Block size selected was 20 m x 20 m in XY direction and 5 m in Z. The size reflects half the drill hole spacing within reasonably drilled areas. Sub-blocking was permitted to 5 m x 5 m x 2.5 m to reflect the likely smallest mining unit.

		0	
Туре	Y	Х	Z
Minimum Coordinates	6429000	379700	125
Maximum Coordinates	6437000	383500	325
User Block Size	20	20	5
Min. Block Size	5	5	2.5

Table :	14-39:	Block	model	origins.
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# 14.2.8.4 Block model attributes

The block model stores numerous variables (Table 14-40) either estimated or directly assigned. The grade variables (silver, calcium, iron, lead, sulphur and zinc) were estimated using OK.

Attribute Name	Туре	Decimal s	Default	Description
ag_id_ct	Float	4	0	silver inverse distance estimate capped
ag_nn_ct	Float	4	0	silver nearest neighbour estimate capped
ag_ok_ct	Float	4	0	silver ordinary krige estimate capped
ag_ok_un	Float	4	0	silver ordinary krige estimate uncapped
ca_id_ct	Float	4	0	calcium ordinary krige estimate capped
ca_ok_ct	Float	4	0	calcium ordinary krige estimate capped
Density	Float	2	0	Density
Deposit	Character	-	Rock	Mineralisation Domain
fe_id_ct	Float	4	0	iron inverse distance estimate capped
fe_ok_ct	Float	4	0	iron ordinary krige estimate capped
Mined	Integer	-	0	1 mined 0 in-situ
pit_area	character	-	rock	Region of the model based on assigned pit names
pb_id_ct	Float	4	0	lead inverse distance estimate capped
pb_nn_ct	Float	4	0	lead nearest neighbour estimate capped
pb_ok_ct	Float	4	0	lead ordinary krige estimate capped
pb_ok_un	Float	4	0	lead ordinary krige estimate uncapped
Rescat	Integer	-	-99	Resource classification
Rock	Integer	-	0	0=Air 5=Rock 1=oxide clay 2=fresh clay 3=oxide dolostone 4= fresh dolostone 5=Oxidised basement granite or arkose, 6=fr arkose 7=granite
s_id_ct	Float	4	0	sulphur inverse distance estimate capped
s_ok_ct	Float	4	0	sulphur ordinary krige estimate capped
weathering	Character	-	AIR	FR = FRESH ROCK, POX = PARTIALLY OXIDISED ROCK, TOX = TOTALLY OXIDISED ROCK
zn_id_ct	Float	4	0	zinc inverse distance estimate capped
zn_ok_ct	Float	4	0	zinc ordinary krige estimate capped
zok_ads	Float	2	0	average distance to samples
zok_cbs	Float	2	0	Conditional bias slope
zok_dh	Integer	-	0	number of informing drill holes
zok_dns	Float	2	0	distance to nearest sample
zok_ke	Float	2	0	krige efficency
zok_kv	Float	2	0	krige variance
zok_ns	Integer	-	0	number of informing samples
zok_ps	Integer	-	0	Estimation pass number

## Table 14-40: Block model attributes.

Associated statistics are stored (average distance to informing samples, distance to nearest sample and number of informing samples, krige variance, krige efficiency and conditional bias slope). Topography, weathering, lithology, mined code and density were assigned to blocks using digital terrain models. Deposit and pit areas were assigned by polygons.

## 14.2.8.5 Block size selection

## 14.2.8.5.1 Declustering

When sample spacing is uneven or has too many samples close together, such as grade control drilling in a resource definition style drill program, it can lead to biased results. Declustering is used to determine amount of bias, either by analysing the declustered charts (Figure 14-13), or by using weights in basic statistics to calculate a less biased result (declustered mean).

Cell Declustering (Goovaerts, 1997) is where a grid is laid over the data and a weight calculated as the inverse of the number of samples in the cell multiplied by the number of occupied cells. The optimum cell size is determined as that where the declustered mean reaches its lowest point. The following charts (Figure 14-13) shows the change in average grade using the cell weighting technique to decluster the data.

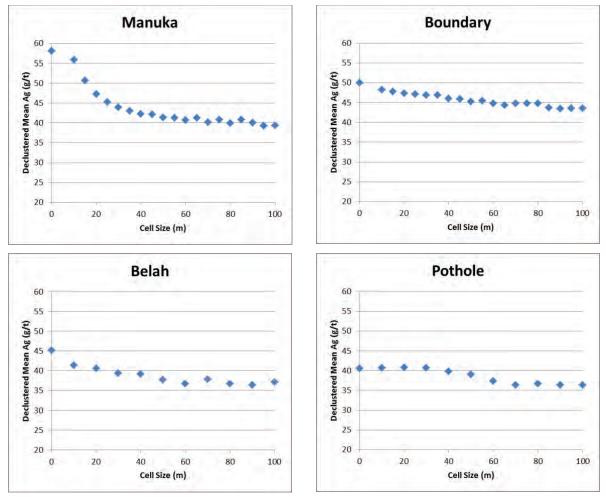


Figure 14-13: Declustered averages with varying cell size.

A variation (Isaaks & Srivastava, 1989) is to weight each sample equally within each cell. The assumption is made that the clustering is in either high or low areas, which is generally the case. A nearest neighbour estimate is also a proxy for declustering data as only one assay (selected as the nearest to the centroid of the block) is assigned to the block, in effect declustering the data.

## 14.2.8.5.2 Block estimation resolution

Declustered means stabilise at 20 m block size indicating this would be a reasonable estimation resolution for blocks (Figure 14-13). Drill spacing within the project area varies considerably and it is appropriate to vary the estimation resolution (Table 14-41). In well informed domains where RC grade control exists, an estimation resolution of  $10 \times 10 \times 2.5$  m was selected as the smallest blocks to estimate. In the regional areas where only exploration drilling has occurred an estimation resolution 40 x 40 x 10 m is more appropriate. Estimation of the secondary elements (Ca, Fe and S) was performed into either 20 x 20 x 5 m or 40 x 40 x 10 m, as appropriate. Estimation was performed within parent blocks; sub-blocks were assigned the value of the parent block.

Domain	Estimation Resolution Ag, Pb, Zn (X x Y x Z m)	Estimation Resolution Ca, Fe, S (X x Y x Z m)
Blue Mountain	40 x 40 x 10	40 x 40 x 10
Boundary	10 x 10 x 2.5	20 x 20 x 2.5
Manuka	10 x 10 x 2.5	20 x 20 x 2.5
Pothole	20 x 20 x 5	20 x 20 x 5
Bimble	20 x 20 x 5	20 x 20 x 5
Belah	20 x 20 x 5	20 x 20 x 5
Bumble	40 x 40 x 10	40 x 40 x 10

Table 14-41: Varied estimation resolution.
--

## 14.2.9 Search parameters and informing samples

Search parameters are summarised in Table 14-42. Each element (Ag, Pb and Zn) was estimated with the same search ellipse to reduce order relation issues between the individual elements. Variability in drill hole spacing creates some difficulties in selection of appropriate search criteria. Estimates include four progressively relaxed search criteria ("passes"), which represent a compromise between providing reasonably robust local estimates and estimating a large proportion of mineralised areas.

Domain #	Domain name	Bearing	Plunge	Distance	Major Axis (m)	Ellipse Ratios		Limit per
						Semi major Axis	Minor Axis	Hole
1	Blue Mountain	340	0	80	75	2.4	2.4	4
2	Boundary	340	0	80	50	2.4	2.4	3
3	Manuka	335	2.6	-10	50	3	3	3
4	Pothole	280	0	0	60	2	2	4
5	Bimble	50	0	0	60	1.2	1.25	3
6	Belah	50	0	0	60	1	1	3
7	Bumble	340	0	80	60	3.18	3.18	4

Table 14-42: Search parameters.

Search radii are generally optimal at or near the distance that the variogram reaches the sill. Variograms show long tails and relatively steep first structures and the first pass were restricted to a similar range as twice first structure, ensuring the samples closest to the estimation point were utilised. Search distances were then multiplied by the pass number. Pass three sees the search distance approach the range of the variograms. The fourth pass was set to 400 m to fill distal blocks, but these were rarely categorised as resources. A vertical restriction was placed on the ellipse so that samples further than 75 m in the unfolded Z direction were not used to inform blocks. Anisotropic semi major and minor ratios for the search axis are defined from variogram analysis. Search ellipse orientations were derived from semi-variogram analysis and checked against

geological interpretation. Search parameters for secondary elements (Ca, Fe and S) were set to 200 m with ellipse ratios of 1.5 and 3.8, the average of available variograms for these elements.

#### 14.2.10 Informing samples

Using an estimation resolution of 10 m x 10 m x 2.5 m for the Manuka and Boundary domains, the number of informing composites was tested to provide a reasonable estimate. Six blocks within the Manuka domain and 4 blocks within the Boundary domain were selected for analysis. Blocks were estimated with an increasing number of samples from 3 to 21 (odd numbers). Estimated grade and conditional bias slopes were considered when selecting the required number of samples to be used in the estimate (Figure 14-14 Manuka, Figure 14-15 Boundary). Using more than 11 composites results in over-smoothing. The conditional bias slope also shows an inflection point around 10 samples for Manuka and approximately 13 samples for Boundary, confirming that the quality of the estimate is not improving with more samples.

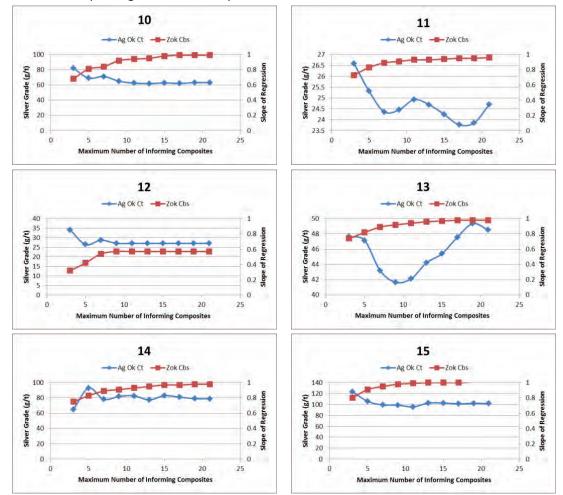


Figure 14-14: Determining maximum informing composites for Manuka.

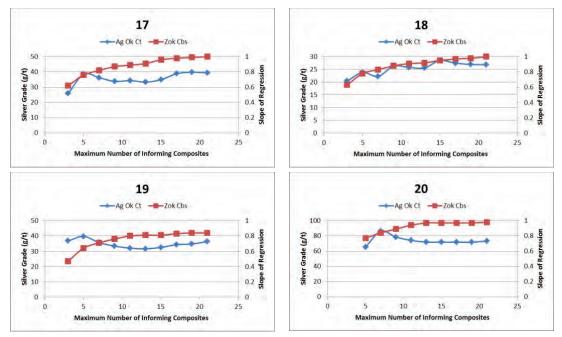


Figure 14-15: Determining maximum informing composites for Boundary.

Each element was estimated with a minimum of 4 and maximum of 12 samples in passes 1 and 2. Pass 3 and 4 saw the minimum reduced to 3 and the maximum reduced to 8.

# 14.2.11 Discretisation

Discretisation is a means of correcting the krige estimate for the volume variance effect. It is used to give an indication of the size and form of the block to the kriging system. This ensures that the estimates are a good representation of the block throughout the whole block, discretisation points were  $4 \times 4 \times 2$  (XYZ).

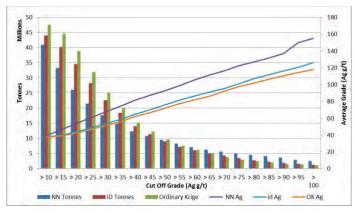
## 14.2.12 Validation and comparison with previous estimates

Block models were validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples or drill holes in both unfolded space and in 3D space.

# 14.2.12.1 Alternative estimation methods

Results of alternative estimation methods (nearest neighbour and ID<sup>2</sup>) were plotted as grade tonnage curves (Figure 14-16 and Figure 14-17) to ensure the kriged estimate was not completely erroneous. Nearest neighbour shows less tonnes and higher grade as it does not employ averaging techniques to assign block grades. The ID<sup>2</sup> estimate is closer to kriging as it does use averaging weighted by distance but cannot assign anisotropy or de-cluster input data or take into account a nugget effect. The ordinary kriged estimate is the most reliable due to the technique's ability decluster the data and weight the samples based on a variogram, which incorporates anisotropy and nugget effect. The grade tonnage curve for the block model demonstrates the desired smoothing when estimating grade from point data (composites) into blocks.

Grade tonnage curves are presented below by "pit area". These areas have the same names as the geological domains, however they are based on previous mining areas.





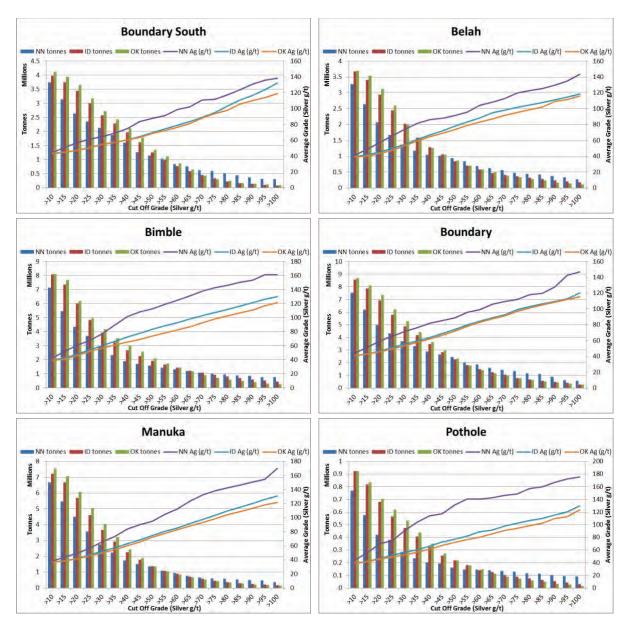


Figure 14-17: Wonawinta grade tonnage curves (OK, ID<sup>2</sup> NN) by designated "Pit Areas".

### 14.2.12.2 Swath plots

Swath plots were generated on 20 m northings for well drilled domains with grade control RC data, (Figure 14-19, Figure 14-20) 40 m for typical resource definition drilling (Figure 14-21, Figure 14-22, Figure 14-23) and 250 m for areas with only exploration drill holes (Figure 14-18). Average assay grades and average estimated silver grades are presented as line graphs (right hand axis) and the bar chart (left hand axis) represents the estimated tonnes per assay within the swath. In areas with 20 x 20 m drill patterns with some RC grade control drilling on a 10 x 10 m pattern, tonnes per composite are less than 5000 t. A reasonably drilled (40 x 40 m with some infill to 40 x 20 m) resource definition pattern contains about 10,000 t per composite and the regional prospects Blue Mountain are over 20,000 t per composite.

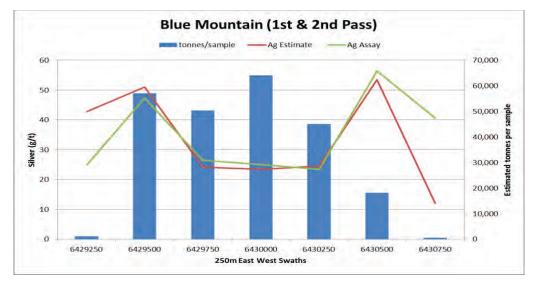


Figure 14-18: Swath plot for Blue Mountain (250m swaths).

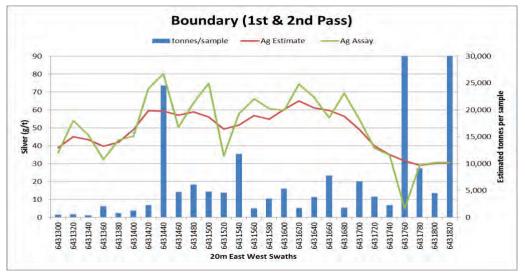
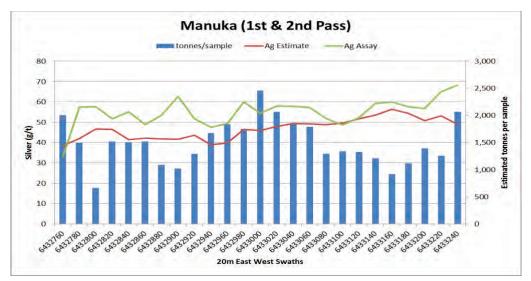
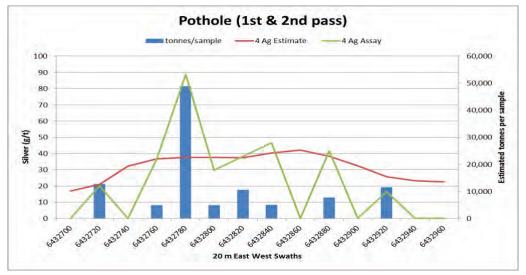


Figure 14-19: Swath plot for Boundary (20m swaths).









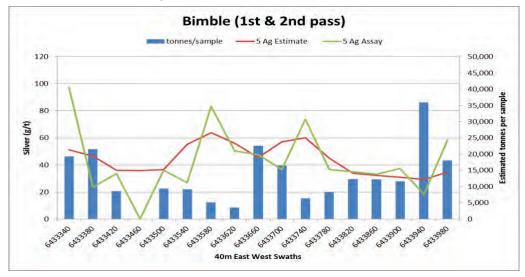


Figure 14-22: Swath plot for Bimble (40m swaths)

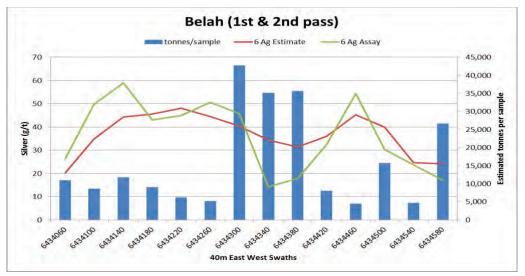


Figure 14-23: Swath plot for Belah (40m swaths)

It is observed that with the increase in search ellipse range the additional tonnes estimated are of lower grade, particularly for Manuka (compare Figure 14-20, Figure 14-24). This is a reflection of localised RC drilling associated with grade control restricted to higher grade proportions of the Wonawinta deposits (Figure 14-25).

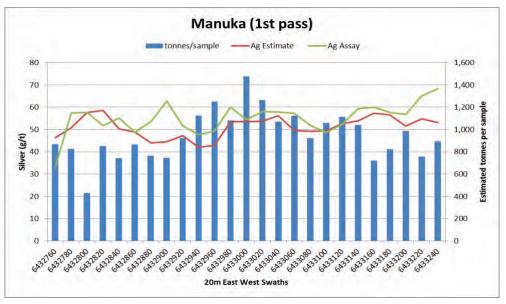


Figure 14-24: Swath plot for Manuka first pass only (20m swaths)

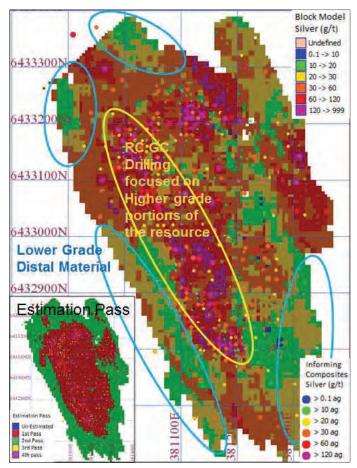


Figure 14-25. Manuka deposit showing lower grade distal estimated blocks with the second pass

Figure 14-24 shows potential underestimation within Manuka between 6432860 mN and 6433100 mN. The project has significant clustering of data in the pit areas (see 14.2.8.5.1) where RC grade control drilling has occurred. A nearest neighbour estimate is also a proxy for declustering data, as only one assay (selected as the nearest to the centroid of the block) is assigned to the block, in effect declustering the data. A comparison of the NN and OK estimate on a sectional basis (swaths) shows a good correlation between the two estimation techniques (Figure 14-26).

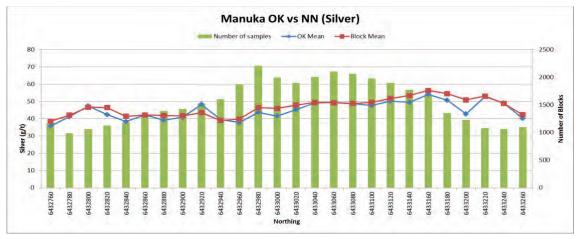


Figure 14-26. Manuka NN and OK swath plot

#### 14.2.12.3 Comparison with previous estimates

Previous resource estimates presented are an estimate of the quantity, grade and metal of the deposit that has not been verified as a current mineral resource or ore reserve, and which was prepared before MRL into an agreement to acquire an interest in the property that contains the deposit. The previous MIK block model (CCR) was depleted to the current mining surfaces and rereported (Table 14-43). Table 14-44 shows the current resource for direct comparison, with both models reported above a 20g/t Ag cut off. The MA model reduces tonnes and marginally increases grade of both silver and lead, resulting in a reduction of contained silver ounces and an increase in the contained lead tonnes.

Resource Category	Material (Mt)	Ag (g/t)	Pb (%)	Ag Moz	Pb kt
Measured	3.03	48.9	0.65	4.77	19.6
Indicated	6.04	51.2	0.77	9.95	46.5
Inferred	34.80	39.5	0.42	44.14	145.7
Total	43.88	41.7	0.48	58.86	211.7

Table 14-43. Previous MIK model reported >20g/t Ag

#### Table 14-44: Current resource estimate reported at >20g/t Ag.

Resource Category	Material (Mt)	Ag (g/t)	Pb (%)	Pb (%) Ag Moz		
Measured	0.89	45.0	0.70	1.29	6.22	
Indicated	8.50	48.5	0.79	13.24	67.45	
Inferred	29.39	40.0	0.55	37.84	162.87	
Total	38.77	42.0	0.61	52.37	236.5	

#### 14.2.12.4 Reconciliations

Between 2012 and March 2014 CCR Ltd processed 1,139,187 tonnes of ore to produce 2,109,342 ounces of silver dore. From March to September 2015 Black Oak Minerals produced approximately 762 Koz of silver dore from 350,312 tonnes at an average head grade of 96 g/t Ag (Table 14-45).

Table 14-45: Mine and mill production	(2012 - 2015).
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Company				CCR	ВОК						
Quarter	Sep Q 2012	Dec Q 2012	Mar Q 2013	Jun Q 2013	Sep Q 2013	Dec Q 2013	Mar Q 2014	Jan Q 2015	Mar Q 2015	Jun Q 2015	Sep Q 2015
Mine production											
Ore mined	129,035	198,765	204,290	236,132	155,624	196,949	177,081	409,742	203,977	-	-
Ore grade – silver	72	90	97	94	92	99	89	85	80	-	-
Contained Ounces	298,697	575,140	637,103	713,631	460,315	626,874	506,702	1,126,154	526,269	-	-
Processing	Plant										
Ore processed	75,561	177,919	171,398	199,158	157,995	188,945	168,211	-	30,973	183,934	135,405
Ore grade - silver	83	93	101	89	109	109	96	-	98	98	93
Recovery - silver	90%	81%	79%	80%	73%	77%	77%	-	69%	70%	71%
Recovered	181,472	430,905	439,689	455,899	404,188	509,851	399,767	-	67,153	407,088	289,038

Silver C	z											
	Total record	led mine p	production	n from the	e Wonav	vinta dep	osit is 1,9	11,595 t at	89 g/t fo	r 5,470,88	35	-
	contained a		Mill produ	uction is	rocordod	1 26 1 100	100+ -+	00 a/t and	77% roc	overy for	2	

contained oz of Ag. Mill production is recorded as 1,489,499t at 98 g/t and 77% recovery for a recovered 3,585,051 oz Ag. Reconciliation between MA's resource model, mine production and mill production are shown in Table 14-47.

# 14.2.13 Assumptions for 'reasonable prospects for eventual economic extraction'

All resources have been stated above a 20g/t Ag cut-off. Assumptions for reasonable prospects for eventual economic extraction applied to this deposit, include but may not be limited to the following summarised assumptions as provided in Table 14-46:

- The cost of mining ore and waste has been consolidated against ore tonnes.
- An assumed resource to reserve conversion rate of 70% Strip Ratio of 1.5.
- The assumed mining cost is \$6.2 per tonne of ore for an overall average cost of \$98.08 million.
- The assumed cost of Administration is \$3 per tonne of ore for a total cost of \$47.46 million.
- The assumed cost of processing is \$16 per tonne of ore for a total of \$253.12 million.
- The assumed capital refurbishment and float circuit costs are \$40 million and is included in the total cost per tonne of ore.
- The total operating cost of mining, processing and administration is \$25.2 per tonne of ore
- Giving reasonable prospects for economic extraction of material above a cut-off 24 g/t Au
- Giving reasonable prospects for economic extraction of material above a cut-off 24 g/t Ag eq, resources at the Manuka Property.

The breakeven cut-off grade includes all listed costs in Table 14-46. The grade tonnage chart for classified resources (depleted to May 2015: no mining has occurred since) at Wonawinta is shown in Figure 14-27.

Parameter	Unit	Value		
Mill throughput	Mtpa	1.50		
Capital Cost	AUD\$/t ore	\$ 1.77		
Assumed Strip Ratio	t	1:5		
General and Admin cost	AUD\$/t ore	\$ 3.00		
Processing cost	AUD\$/t ore	\$ 16.00		
Average mining cost	AUD\$/t ore	\$ 6.20		
Total Cost	AUD\$/t ore	\$ 26.97		
Silver Price	AUD\$/Oz	\$ 30.00		
Lead Price	AUD\$/lb	\$ 1.10		
Zinc Price	AUD\$/lb	\$ 1.38		
Average recovery – Ag		80%		
Average recovery – Pb		80%		
Average recovery – Zn		80%		
Cut-off Grade Silver Equivalent (	Ag eq g/t)	24		
Reported Resource cut-off grade	(Ag g/t)	20		

Table 14-46: Cut-off grade and optimisation assumptions.

Resource Model			Mine Produ	ction		Mill Production			
Tonnes	g/t	OZ	Tonnes	Fonnes g/t oz		tonnes	g/t		
2,013,000	87	5,611,177	1,911,595 89 5,470,885 1		1,489,499	98	4,677,721		
Reconciled Re	esource		95% 103% 97%		74%	113%	83%		
Reconciled Mine Production							110%	86%	

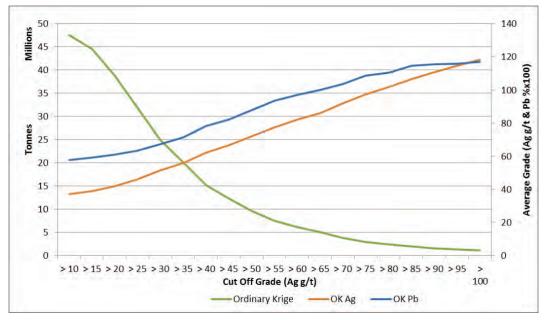


Figure 14-27: Wonawinta grade tonnage chart.

#### 14.2.14 Bulk density

Bulk density information was taken from previous reports by MPR (2014) and a report summarising the measurement of density data (CCR, 2014). Original bulk density data was not included in the drill hole database and MA was unable to locate it after searching through the supplied digital data.

Density determinations were made on a total of 165 samples of PQ core from CCR drilling in the Boundary deposit area in 2009. Two density measurements were made on each sample:

- In situ bulk density: density of material at natural water content. Used for mining and processing tonnages.
- Dry bulk density: density of material after drying water from voids. Used for resource tonnage calculations.

Measurement of density used the water displacement method, with samples being measured as is for in situ bulk density, then being oven dried at 120°C to obtain a dry bulk density. Samples were not sealed prior to immersion in water. While this is probably not an issue with clay samples, it is not recorded if any of the fresh dolomite/limestone samples contained solution cavities/voids that would result in over-estimation of density if not accounted for.

Table 14-48 shows a summary of density measurements by lithology type as compiled by MPR (2014). Limestone is generally under-represented, particularly mineralised oxide limestone, which contributes a large volume to resources.

Mineralised	Lithological Domain	Number Samples	Dry Bulk De	nsity (t/m³)	
Domain		Number Samples	Minimum	Average	Maximum
	Oxide clay	62	1.50	2.02	2.17
	Sulphide clay	9	1.33	1.75	2.12
Waste	Oxide limestone	5	1.60	1.86	2.14
	Sulphide limestone	12	2.61	2.77	3.00
	Subtotal	88	1.33	2.08	3.00
	Oxide clay	37	1.41	1.94	2.39
Mineralised	Sulphide clay	11	1.77	2.04	2.32
Mineralised (>22 g/t Ag)	Oxide limestone	11	1.94	2.30	2.74
(* 8/ * / 8/	Sulphide limestone	6	2.19	2.60	2.80
	Subtotal	65	1.41	2.08	2.80
	Oxide clay	99	1.41	1.99	2.39
	Sulphide clay	20	1.33	1.91	2.32
Total	Oxide limestone	16	1.60	2.16	2.74
	Sulphide limestone	18	2.19	2.71	3.00
	Subtotal	153	1.33	2.08	3.00

Table 14-48: Density measurement summary (from MPR, 2014).

MPR (2014) plotted density versus silver grade grouped by lithotype (Figure 14-28). This showed no clear association between silver grade and density, although there are too few samples for the interpretation to be conclusive. A simple association between silver and density is unlikely in any case given the quantities of silver bearing minerals even at high silver grades (e.g. >100 g/t). A correlation between density and combined iron, lead and zinc would be more likely because these elements will form minerals with higher density than the gangue.

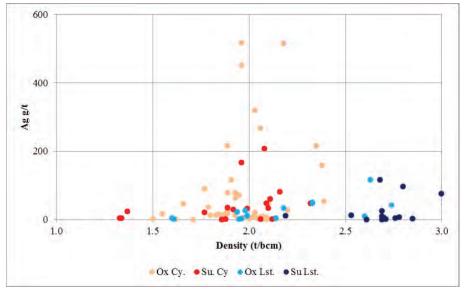


Figure 14-28: Silver grade versus dry bulk density (from MPR, 2014).

Table 14-49 shows dry bulk densities applied to the current resource estimate by lithotype and oxidation state.

Lithotype	Dry bulk density (t/m <sup>3</sup> )
Oxide Clay	2.0
Sulphide Clay	2.0
Oxide Limestone	2.2
Sulphide Limestone	2.6

Table 14-49: Dry bulk densities applied to resource estimate

In MA's opinion the average density measurements are adequate for defining mineral resources. However, in any localised areas of high lead, zinc and iron grades they are likely to under-estimate tonnages slightly. In addition, zones of limestone containing higher proportions of voids in the form of vughs/cavities may have over-estimated tonnages. MA also notes that all density measurements were made on core material from the Boundary area. While it is considered unlikely that there would be material differences between areas, additional samples from Manuka and other prospects should be tested.

#### 14.2.15 Moisture

Moisture contents were determined by weight differences between in-situ and oven dried samples as part of the density determination procedure described above. In addition, CCR undertook moisture determinations on 21 RC samples from Boundary, within the area of previous core drilling.

Average moisture content of clay lithotypes varied between 12% and 15% for core samples and 7% and 12% for RC samples. Moisture content in limestone was around 4% for core and 1% for RC. Possible explanations for these differences include increase in core moisture contents from drilling fluids and loss of moisture in RC due to partial drying by hot compressed air during drilling. Higher moisture content in limestone core samples may have been due to the presence of solution cavities destroyed by RC drilling.

#### **14.2.16 Mining and metallurgical Factors**

No mining factors have been applied to the in-situ grade estimates for mining dilution or loss as a result of the grade control or mining process. No metallurgical factors have been applied to the in-situ grade estimates.

#### 14.2.16.1 Mining depletion

Blocks were assigned a value of 1 in the "mined" attribute and a "resource category" value of 5 where they were contained within surveyed open pits. These blocks were not included in resource reporting. Open pit workings were surveyed by BOK survey staff and stored as Surpac digital terrain models (DTMs) asbuilt\_manuka150503.dtm and asbuilt\_boundary140331.dtm. No mining was carried out at the Manuka Property after these dates.

#### 14.2.17 Resource classification

Based on the study herein reported, delineated mineralisation of the Manuka Property (Wonawinta) is classified as a resource according to the definitions from JORC Code standards:

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. (JORC Code 2012)

Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity).

The quality of the data is suitable for resource estimates, summary reports provided by independent consultants provided to previous lease holders were relied on in the preparation of this report. MA has not sighted physical hard copies or certified laboratory reports, no original density data is available, nor original geological logging sheets or core/RC chips.

A breakdown of the current Wonawinta resource estimate by resource category above 20 g/t depleted to May 2015 by resource category is provided in Table 14-50.

Resource category	Material Type	Tonnes (kt)	Ag (g/t)	Pb (%)	koz	kt
Measured	Ox	785.75	45.7	0.73	1,154	5.7
	Fr	105.30	40.3	0.47	137	0.5
Indicated	Ox	6,023	46.7	0.85	9,041	51.0
	Fr	2,473	52.8	0.66	4,200	16.4
Inferred	Ox	14,474	38.9	0.68	18,119	97.9
	Fr	14,913	41.1	0.44	19,718	64.9
Total		38,774	42.0	0.61	52,367	236.5

Table 14-50: Resource categories for Wonawinta (> 20g/t Ag).

#### Table 14-51: Wonawinta Resource by prospect (>20g/t Ag).

		Measure	Measured					Indicated				Inferred				
Deposit		Tonnes (kt)	Ag (g/t)	Pb (%)	koz	kt	Tonnes (kt)	Ag (g/t)	Pb (%)	Moz	kt	Tonnes (kt)	Ag (g/t)	Pb (%)	Moz	kt
Blue	Ox											2,895	40	0.4	3705	12.8
Mountain	Fr											5,560	31	0.3	5495	16.5
Belah	Ox						1,248	49.2	1.17	1976	14.5	1,479	34	1.2	1613	17.4
	Fr						52	61.4	0.88	104	0.5	341	60	0.8	657	2.7
Bimble	Ox						1,183	52.3	0.93	1987	11.1	3,685	39	0.9	4662	33.6
	Fr						502	61.5	0.84	992	4.2	1,171	55	0.7	2063	8.4
Boundary	Ox	296	44.0	0.67	419	2.0	1,517	43.4	0.65	2118	9.8	3,506	45	0.5	5097	17.7
	Fr	19	52.8	0.63	32	0.1	1,244	52.8	0.63	2112	7.9	4,699	50	0.5	7620	22.3
Manuka	Ox	489	46.7	0.76	734	3.7	1,654	43.4	0.77	2307	12.8	2,628	32	0.6	2662	14.6
	Fr	86	37.6	0.43	104	0.4	675	45.7	0.58	991	3.9	3,139	38	0.5	3880	15.0
Pothole	Ox						421	48.3	0.68	653	2.9	281	42	0.7	379	1.8
	Fr						0.3	27.6	0.36	0.3	0.0	3	39	0.5	4	0.0
Sub Total	Ox	786	45.7	0.73	1,154	5.7	6,023	46.7	0.85	9,041	51.0	14,474	39	0.7	18,119	97.9
Sub Total	Fr	105	40.3	0.47	137	0.5	2,473	52.8	0.66	4,200	16.4	14,913	41	0.4	19,718	64.9
Total		891	45.0	0.70	1,290	6.2	8,496	48.5	0.79	13,241	67.4	29,387	40	0.6	37,836	162.9

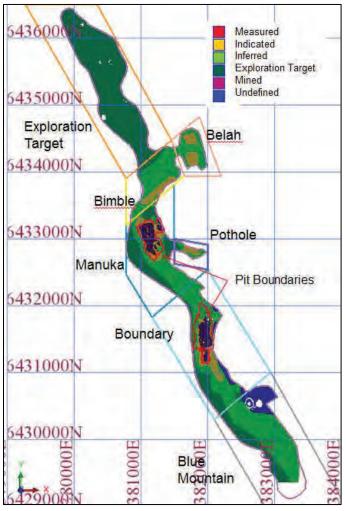


Figure 14-29: Manuka Property Resource Boundaries.

For the classification of Mineral Resources for the Project, the following definitions were adopted and applied to each domain separately:

Measured Mineral Resources: those portions of the deposit estimated with a nominal drill spacing of 10 m x 10 m and demonstrate a high level of confidence in the geological and grade continuity of mineralisation. Blocks are dominantly estimated with a minimum of 12 composites, the nearest drill hole within 20 m and the average distance to all informing samples approximately 30 m or less. Krige efficiencies for measured mineral resources are dominantly higher than 0.5. The conditional bias slope recorded is greater than 0.8. Measured Mineral Resource are estimated in the first kriging run.

Indicated Mineral Resources: those portions of the deposit estimated with a drill spacing of 40 m x 40 m that demonstrate a reasonable level of confidence in the geological continuity of mineralisation. The following estimation statistics were used as a guideline to assist defining grade continuity. Indicated blocks have been estimated with a minimum of 5 samples, and within 40 m of a drill hole, and an average distance to all informing composites of 80m. Krige efficiencies of blocks within the Indicated category fall within the range of 0.25 to 0.4. Lower efficiency blocks may be included if a structural trend is present. Indicated resources may be estimated in the first or second kriging run.

Inferred Mineral Resources: those portions of the deposit estimated with a drill spacing of greater than  $40 \text{ m} \times 40 \text{ m}$ , and include areas drilled on a 250 m x 100 m sections or those portions of the

deposit with a smaller number of intersections but demonstrating a reasonable level of geological confidence.

#### 14.2.17.1 Stockpiles

In addition to the resources detailed in Table 14-51, stockpiled mineralised material remains on the ROM pad. In June 2016 a detailed LIDAR drone survey was undertaken to define stockpile volumes. Stockpile grades were derived from BOK and CCR production records, and densities were estimated as either 1.8 t/m<sup>3</sup> or 2.0 t/m<sup>3</sup> depending on the degree of inferred compaction. Results are shown in Table 14-52. The 'unknown' material type refers to surveyed stockpiles of uncertain origin that are most probably low-grade material. Stockpiled material is classified as Indicated Resources due to the uncertainty in tonnages and grades.

Likely material	Tonnes	Ag (g/t)	Contained Oz Ag
Ore	377,677	75.50	917,000
Low grade	86,956	55.00	154,000
Unknown	51,107	55.00	90,000
Total	515,740	70.01	1,161,000

Table 14-52: Stockpile tonnage and grade estimate.

## 14.2.17.2 Exploration Target

In addition to the defined mineral resource (Figure 14-29) there are areas drilled on exploration style drill spacing, e.g. 250 x 50m. While this limited data is insufficient to provide a resource estimate, it does provide sufficient exploratory data to define an Exploration Target.

An Exploration Target (outside the Wonawinta resource areas) of between 9.1 Mt @ 46g/t Ag and 0.6% Pb and 19.9 Mt @ 36 g/t Ag and 0.5g/t Pb, provides a potential 13.7 to 23.3 Moz of silver and between 53.5 kt and 96.9 kt of lead. The tonnes and grade defined as an Exploration Target are conceptual in nature, and there has been insufficient exploration to estimate a mineral resource and it is uncertain if further exploration will result in the conversion to a mineral resource.

This range of values was estimated in the same way as the resource, utilising nearest neighbour and ordinary kriging estimates. There is insufficient data and uncertainty within the geological interpretation in these distal areas to qualify this material as a Mineral Resource.

MRLs exploration priorities are as follows:

- 1. Priority drill targets can be defined as Inferred material within BOK defined pits shells.
- 2. Search for potential mineralisation adjacent to any of the BOK defined pit shells.
- 3. Chase fresh mineralisation within the bottom of the BOK defined pit shells.
- 4. Explore areas where the limestone is interpreted to be within 50 m of the surface.
- 5. Explore the deeper structural zones within the fresh mineralisation at depth; investigate potential for mineralisation similar to the Elura deposit.
- 6. Further groundwork north of the project in the areas associated with the high zinc anomalies in soil geochemistry.

Items 1 to 3 are inside the current resource dominantly as inferred material and are the company's priority, as this work will directly impact future reserves. Items 4 to 6 focus on the Exploration Target and form part of the long-term exploration strategy. The Exploration Target will be tested as part of the on-going expenditure of the exploration licences.

#### 14.2.18 Discussion on factors potentially affecting materiality of resources and reserves

The following factors could potentially impact on the materiality of the mineral resource estimate:

The quality of the data is suitable for resource estimates, however no physical hard copies or certified laboratory reports have been sited, no original density data is available and no original geological logging sheets or core/RC chip have been sighted.

Limited metallurgical test work has been conducted at Wonawinta and MA understands the previous operators had recovery issues. The resource is provided in Table 14-53 in broad lithological units divided by oxidation state as each sub group is likely to have different metallurgical characteristics.

Pit Areas Lithology 1 (Oxide Clay)		Lithology 2 (Fresh Clay)		Lithology 3 (Oxide Limestone)		Lithology 4 (Fresh Limestone)			Lithology 5 (Oxidised Basement)						
>20 g/t Ag	kt	Ag g/t	Pb%	kt	Ag g/t	Pb%	kt	Ag g/t	Pb%	kt	Ag g/t	Pb%	kt	Ag g/t	Pb%
BELAH	1,781	43.8	1.1	267	70.3	0.9	516	38.4	1.0	126	38.8	0.5	430	32.1	1.7
BIMBLE	3,337	47.2	1.0	1,156	61.1	0.8	1,427	32.0	0.8	507	47.2	0.6	113	35.1	1,107.5
POTHOLE	629	47.3	0.7	3	39.8	0.5	56	33.4	0.7	0.5	27.5	0.3	16	30.4	0.6
BOUNDARY	1,328	44.0	0.7	927	68.9	0.8	1,867	39.4	0.5	3,222	43.1	0.4			
BOUNDARY SOUTH	2,827	45.7	0.5	2,370	42.6	0.5	2,192	41.7	0.5	5,002	34.2	0.3			
MANUKA	1,407	36.9	0.8	474	31.0	0.4	3,338	37.3	0.6	3,426	40.9	0.5	27	31.5	0.3
Totals	11,31 0	44.7	0.8	5,197	51.8	0.6	9,397	38.0	0.6	12,285	39.0	0.4	586	32.6	214.5

#### Table 14-53: Manuka Property resources by area and oxidation state

Zn, Fe, Ca and S were estimated in the model where sufficient data was available. These secondary elements are provided in the block model to aid mineralisation characterisation but not considered in the reported Mineral Resource.

#### 14.2.19 Mineral resource estimate statement

JORC categorised Mineral Resources for the Manuka Property (Wonawinta) have been classified as measured, indicated and inferred confidence categories on a spatial, areal and zone basis and are listed in Table 14-54. The total resource is 38.774 million tonnes at 42.0 g/t Ag and 0.61% Pb providing 52,367 thousand ounces and 236.5 thousand tonnes of lead.

Table 14-54: Resource Categories of the Manuka Property (> 20g/t Ag).								
Resource category	Material Type	Tonnes (kt)	Ag (g/t)	Pb (%)	koz	kt		
Measured	Ox	785.75	45.7	0.73	1,154	5.7		
	Fr	105.30	40.3	0.47	137	0.5		
Indicated	Ox	6,023	46.7	0.85	9,041	51.0		
	Fr	2,473	52.8	0.66	4,200	16.4		
Sub Total	Ox	6,808	46.6	0.83	10,195	57		
МІ	Fr	2,579	52.3	0.66	4,336	17		
Inferred	Ox	14,474	38.9	0.68	18,119	97.9		
	Fr	14,913	41.1	0.44	19,718	64.9		
Total MII		38,774	42.0	0.61	52,367	236.5		
Stockpiles (Indicated)		515.7	70.01		1,161			

Table 14-54: Resource Categories of the Manuka Property (> 20g/t Ag).

Note: Reported differences may be present due to rounding of significant figures. According to Clause 27 of the JORC Code 2012 edition: "in a public report of a Mineral Resource for a significant project for the first time, or when those estimates have materially changed from when they were last reported, a brief summary of the information in relevant sections of Table 1 must be provided". Table 1 is included in section Appendix 1 of this report and must accompany any reporting of Mineral Resources.

"The information in this report that relates to Mineral Resources is based on information compiled by Mr Ian Taylor, who is a Certified Professional by The Australasian Institute of Mining and Metallurgy and is employed by Mining Associates Pty Ltd. Mr Taylor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears".

# **15 MINERAL RESERVE ESTIMATES**

#### **15.1 MT BOPPY**

This Section is summarised from the Mt Boppy Gold Mine Ore Reserves Statement prepared by Australian Mine Design and Development Pty Ltd (AMDAD) (Desoe, 2020).

#### **15.1.1** Ore Reserves summary

The Probable Ore Reserve Estimate, summarised in Table 15-1, is for extension of the existing open cut, feeding a 57 tonne per hour processing plant at Manuka Mine. The Ore Reserve Estimate is based on the latest resource model updated in September 2016 (Section 14.1) including adjustment for ground surface using drone-survey data from November 2015 to represent the current as-mined surface.

Оге Туре	'000 Tonnes	g/t Au
Oxide	10	3.1
Transitional	130	2.9
Fresh	20	3.3
Stope tailings fill	100	3.3
Existing Stockpiles	60	2.5
Total Probable Ore Reserves	320	3.0

Table 15-1: Mt Boppy Probable Ore Reserves.

Notes: The tonnes and grades shown in the total's rows are stated to a number of significant figures reflecting the confidence of the estimate. The table may nevertheless show apparent inconsistencies between the sum of components and the corresponding rounded totals.

#### 15.1.2 Contributing persons

The February 2020 Mt Boppy Ore Reserves Estimate and Statement have involved contributions from qualified persons in several technical disciplines. Table 15-2: Contributing Experts of this Ore Reserves Statement lists those persons responsible for contributions in these technical disciplines, including references to key supporting documents.

# 15.1.3 Accord with JORC Code

This Ore Reserves Statement has been prepared in accordance with the guidelines of the Australasian Code for the Reporting of Resources and Reserves 2012 Edition (the JORC Code). The Competent Person signing off on the overall Ore Reserves Estimate is Mr Chris Desoe, of Australian Mine Design and Development Pty Ltd, who has more than 20 years of relevant experience in operations and consulting for open cut metalliferous mines. JORC Table 1 Section 4 Estimation and Reporting of Ore Reserves are provided in Section 29.4. The Competent Person's Consent letter for the Ore Reserves Estimate is provided at the end of this report.

#### **15.2 WONAWINTA**

This Item is not applicable for this report.

#### **Expert Person/Company** Area of Expertise **References / Information Supplied** The reserves are derived from the February 2020 resource estimate and the corresponding resource model in Surpac block model format, mtboppy\_ma\_2016-1.mdl, prepared by Mining Associates. Refer to:-Technical Report on the Mt Boppy Gold Project, NSW, Australia, Ian Taylor Geological modelling, resource prepared by Mining Associates Pty Ltd For Manuka Resources modelling, resource estimate, (Mining Associates) Ltd, Effective Date: 20 February 2020, Submitted Date: 20 ground surface survey. February 2020, Reference: MA1631, including JORC Table 1, Sections 1, 2 and 3, MA2003-1-1 Mt Boppy Gold Project.docx MBR Group 3 Dec 2016 File Note Mt Boppy Block Model North ٠ of 6508130N - High Grade Review Mt Boppy File Note 031216 Block Model.docx The open cut geotechnical design is supported by the following documents: Mt Boppy Pit Design Review, PSM3170-0080, PSM slides, 18 February 2020, PSM3170-0080.pdf Felicia Weir Open cut geotechnical design. Mt Boppy Geotechnical Design Review, PSM3170-007R, PSM (PSM) report, 11 February 2020, PSM3170-007R.pdf Mt Boppy Geotechnical Site Visit October 2016, PSM3170-004R, PSM report, 2 November 2016, PSM3170-004R FINAL Report dated 2 Nov 2016.pdf The mining assumptions are supported by the following documents: Chapter 3 Mining and Chapter 9 Cost Estimates of the Draft Mt Boppy Gold Project Implementation Plan February 2020, Mt Boppy implementation plan V6.docx Mining schedule Mining & Processing sequence 24 Feb 2020 final.xlsx Mining costs, Mt Boppy Mining Costs for Opti\_17 01 20 Mining method, mine schedule, rev4.xlsx, Manuka-Mt B. CF model - Actual 27 Feb 2020 - 2021 Rod Griffith mining personnel and equipment, (Mt Boppy only).xlsx mining contractor and owners (Mining and Technical Waste rock breakdown into PAF and NAF categories, paf\_naf costs, pit water management, • Consultant, MRL) (Mt Boppy 26 02 2020).xlsx waste rock quantities and plan. Waste rock emplacement notes, Mt Boppy WRE IP comments.docx • Comments in Chapter 7 Environment and Section 8.2 Health, Safety and Environmental Management of the Draft Mt Boppy Gold Project Implementation Plan February 2020, Mt Boppy implementation plan V6.docx. The pit optimisation, design and ore reserves estimation are supported by the following documents: 14 Jan 2020 email from S Weckert, AMDAD to R Griffith, MRL with pit optimisation results spreadsheet 1874AMD20200114\_MtBoppy\_optimisn\_results\_v02.xlsx. Chris Desoe Pit optimisation, pit design, cut-off Pit design presented in Chapter 3 Mining of the Draft Mt Boppy grade, site visit, ore reserves (Australian Mine Design Gold Project Implementation Plan February 2020, Mt Boppy estimation and overall sign-off of and Development Ptv implementation plan V6.docx. Ore Reserves including Ltd) defined Cut-off grade in 1874AMD20200223\_Whittle\_Inputs\_v03\_with\_sensitivities.xlsx Ore Reserves Statement, ITR MT BOPPY GOLD MANUKA SILVER 28Apr20 MA2003-2-2 David Foster Process performance predictions Processing assessment and assumptions are supported by the

#### **Table 15-2: Contributing Experts**

including gold recovery and ore

(Metallurgical

Expert Person/Company	Area of Expertise	References / Information Supplied
Consultant, MRL)	processing rate.	following documents:
	Suitability and design of processing facility and associated infrastructure and associated capital cost estimates. Processing and maintenance operating costs for process plant and Manuka mine site.	<ul> <li>Chapter 3 Metallurgy and Process Design and Chapter 9 Cost Estimates of the Draft Mt Boppy Gold Project Implementation Plan February 2020, <i>Mt Boppy implementation plan V6.docx</i>.</li> <li>Processing recovery assumptions, processing costs and Manuka site costs in <i>Manuka-Mt B. CF model - Actual 27 Feb 2020 - 2021</i> (<i>Mt Boppy only</i>).xlsx</li> </ul>
Mitchell Bland (R. W. Corkery & Co. Pty Limited)	Environmental and Social assessment and assumptions including:- surface hydrology, site water management, tailings and waste rock geochemical assessment and storage requirements. Other assessments, requirements and approvals for mine operations, environmental and closure aspects, and community.	<ul> <li>Assessment and assumptions for Environment, Community and Approvals are supported by the following documents:</li> <li>Mining Operations Plan for the Mount Boppy Gold Mine, January 2020, 56918_Mt Boppy MOP - January 2020.pdf</li> <li>Mining Operations Plan for the Manuka Mine, January 2020, 80239_MOP Manuka Mine - January 2020.pdf</li> <li>Implementation Plan for a Modified Soil and Water Management Plan for the Mt Boppy Gold Mine Prepared by R. W. Corkery &amp; Co. Pty Limited: March 2016 56915_Implementation Plan for Modified SWMP_March 2016.pdf</li> <li>Soil and Water Management Plan for the Mt Boppy Gold Mine Prepared by R. W. Corkery &amp; Co. Pty Limited: June 2016 56911_SWMP_June 2016_060616 (final).pdf</li> <li>Letter dated 2nd March 2020, regarding status of Mining Operations Plans (MOPS).</li> </ul>
David Power (General Manager Operations, MRL)	General project infrastructure and associated capital cost estimates. Power supply, water supply and costs. Personnel costs, communications/IT systems, community relations and security. Sustaining capital costs. Logistics and transport costs.	<ul> <li>Site infrastructure, general site cost assumptions, transport cost assumptions, are supported by the following</li> <li>Chapter 6 Infrastructure and Services and Chapter 9 Cost Estimates of the Draft Mt Boppy Gold Project Implementation Plan February 2020, <i>Mt Boppy Implementation plan V6.docx</i>.</li> </ul>
Alireza Naderian (AECOM Australia Pty Ltd)	Tailings storage facility design.	<ul> <li>Tailings Storage Facility design is supported by the following</li> <li>Manuka Mine - Tailings Storage Facility (TSF) Stage 2 Embankment Raise - Construction Specification - 60527920 - Manuka Stage 2 - Construction Specification - Rev 0.pdf,</li> <li>Manuka Silver Mine - Tailings Storage Facility Stage 2 Design – Construction Drawings Combined_Drawings_20200214.pdf</li> </ul>
Haydn Lynch (Chief Commercial Officer, MRL)	Gold price. Assessment of financial viability of project based on estimated ore reserves. Confirmation that there are no other material risks to the project and/or to the estimation of the ore reserves.	<ul> <li>Marketing assessment, gold price assumptions, and overall project economics are supported by the following documents:</li> <li>Chapter 10 Financial Analysis of the Draft Mt Boppy Gold Project Implementation Plan February 2020, <i>Mt Boppy implementation plan V6.docx</i></li> <li>Financial model <i>Manuka-Mt B. CF model - Actual 27 Feb 2020 - 2021 (Mt Boppy only).xlsx</i></li> <li>Email confirming project economic viability based on Mt Boppy Ore Reserves.</li> </ul>

# 16 MINING METHODS

## **16.1 MT BOPPY**

This Section is summarised from the Mt Boppy Gold Mine Ore Reserves Statement prepared by Australian Mine Design and Development Pty Ltd (AMDAD) (Desoe, 2020).

# 16.1.1 Mining method

Mining of the Mt Boppy open cut pit will be by conventional drill and blast, load and haul methods. The development of the open cut will comprise gradual deepening and extension of the previous pit base limits. The final pit will be up to approximately 115m deep, 200m wide and 450m long at the original pit crest. Access to the pit is currently via a single lane ramp predominantly on the eastern side of the pit. The ramp will be extended to the southern end of the open cut. The last 150m segment of the ramp will run down the bottom of the western wall.

Activities to be carried out on the Mt Boppy mine site include;

- Dewatering of the pit, storage of water within temporary mine water storage dams and irrigation of areas of the mine, either for the purpose of dust suppression, rehabilitation or evapotranspiration.
- Reinstatement of the existing access ramp and the base of the pit, which may include clean-up of sediments/mud and releveling of the working areas to allow conventional mining activities to be undertaken.
- Grade control and probe drilling including:-
  - "Stand-alone" RC drilling to cover the 50m vertical extent of the in-pit ore reserves,
  - Sampling and sample assaying
  - Adjustment of resource model as appropriate and mark out of ore zones
  - Probe drilling to ensure the historical underground workings are located and the current conditions of the voids are clearly identified and assessed before mining operations commence in those particular areas
- Implementation of measures to address identified voids in accordance with the Mt Boppy Void Management Guidelines that are being developed. This may include filling of any large voids that pose a risk to safe mining operations in the vicinity of the void.
- Mining ore and waste rock from the open cut, by
  - $\circ$   $\;$  Drill and blast on 5m benches,
  - Load and haul using 80t to 100t class hydraulic backhoe excavator and 40t class articulated dump trucks. The shot bench, approximately 6m high, will be dug in two 3m flitches or possibly three 2m flitches.

Note that no vegetation and topsoil clearing is required for the mining area as the mining only involves deepening the existing open cut.

- Management of waste rock including:-
  - Placement of waste rock on and expanding of the existing Waste Rock Emplacement (WRE) and subsequent rehabilitation.
  - Internment of potentially acid forming (PAF) material within designated areas of the WRE and subsequent capping and rehabilitation.
  - Internment of PAF waste rock within the existing Tailings Storage Facility (TSF) 3 and subsequent completion of capping and final rehabilitation.

- Crushing and transportation of mined ore and existing stockpiled ore from the Mt Boppy Mine to the processing facility at Manuka Mine Site, approximately 80km south of Cobar.
- Maintenance of ancillary infrastructure including internal roads, offices and workshops, car parking and hardstand areas, and water management structures.
- Mining operations will be undertaken by contractor as MRL is not an experienced miner.

# 16.1.2 Geotechnical

- Several geotechnical site visits and reviews have been undertaken for the Mt Boppy open cut by
  external consultant groups, including geotechnical review by Coffey for Polymetals Mining
  Services in 2006 and 2012 and more recent reviews for MRL by Pells Sullivan Meynink (PSM)
  from 2016 to present. Coffey provided slope designs for the east wall and west wall, for
  weathered and fresh rock. The recent open cut designs have involved deepening the pit in
  predominantly fresh rock and consequently PSM has focused on geotechnical design for fresh
  rock, and in particular addressing concerns associated with existing failures on the west wall.
- The original fresh rock design proposed by Coffey was 70° faces and 5m wide berms every 20m vertically. In its recent advice, PSM proposed an alternative design for fresh rock of 80° faces and 7m wide berms every 20m vertically. This achieves the same inter ramp angle, but the wider berm improves rock fall management.
- Additionally, PSM recommends a 12m wide catch-berm around 225mRL on the west and southwest wall to address existing and potential failures. As the west wall has already been blasted down to 215mRL the design incorporates a 12m wide berm at 215mRL.
- The failed material in the south-west wall currently forms a buttress that stabilises the failure. As much as possible, the failed material and blasted material immediately below the failure will be left in place to maintain the buttressing. This means that a large part of the 12m berm will be occupied by the rill of failed and blasted material.
- The recent geotechnical review also addressed potential instability of stope fill material. This material may have compacted over time, and exposures in the southern wall suggest it may have some strength, possibly allowing batters to be formed in this material. However, PSM has recommended that stope fill should be removed from batters and not form batters in fill. One exception is in the southern wall where the designed ramp crosses stope fill. This is likely to require ground support, which could simply be shotcrete as shown by the hatch in green in the figure below. To improve overall stability some basic piles (red) could be installed on the outer edge of the fill.

The other exception is the bottom bench of the proposed pit design, which incorporates a 10m high batter formed in fill. This has an increased risk of slumping and erosional failure, but it should be possible to manage this operationally for the short duration of the final benches.

The design also includes a bench where removal of the stope fill back to the stope wall will leave a sub-vertical face on the east wall, around 6508070mN from 195mRL to 175mRL. This may result in some degradation of the rock mass and elevated stability risk.

- Wall stability in critical areas is being monitored using prisms and base station.
- A Ground Control Management Plan (GCMP) has been drafted and is being finalised for operations.

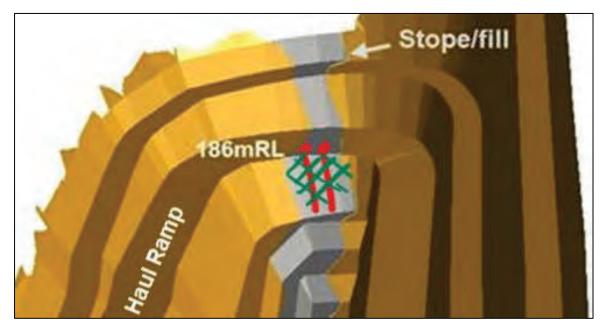


Figure 16-1 View looking south showing support for stope fill crossed by haul ramp at southern end of pit

## 16.1.3 Mine design

The open cut design was based on Whittle pit optimisation run by AMDAD. The optimisation applied economic and processing parameters provided by MRL and pit wall slopes based on the geotechnical design parameters with allowance for the haul ramp. Due to the short mine life the cash-optimal pit shell was selected as the basis for design. The optimised shell was only used as a guide to target ore and to define the depth for the pit base. Notwithstanding the optimised shell, the design was also largely constrained within the existing open cut to avoid any pushbacks from the pit crest at the original ground level that would result in an onerous strip ratio.

The open cut design is shown in the following Figure 16-2 with the crest of the excavation shown by the blue line. AMDAD prepared the design using Surpac mine planning software. It incorporates the alternative geotechnical design proposed by PSM and has the following features:

- Top of excavation: 226mRL
- Base (goodbye cut): 165mRL
- Overall Strip Ratio: 2.4 t waste : 1.0 t ore
- Haul Ramp
  - Width (Single Lane):10m
  - o Effective Width: 8m
  - Average Gradient: 1 in 8.
- Approximate Haul Distances:-
  - Pit Exit to ROM: 300m
  - Pit Exit to Waste Dump: 300m
  - Pit Exit PAF to TSF: 700m

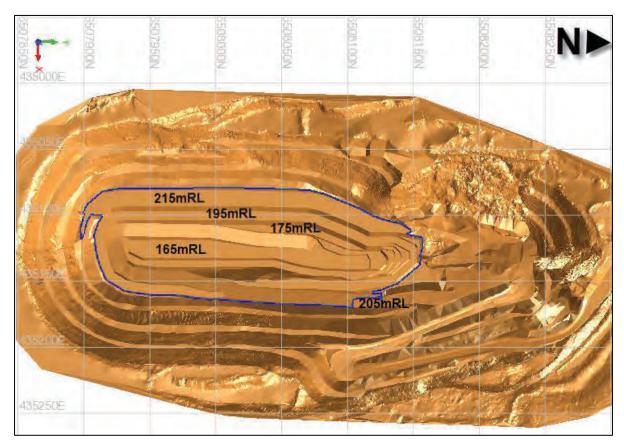


Figure 16-2 Plan view of open cut excavation design within blue "crest" line.

The proposed pit excavation will be constricted, with an overall width of only approximately 90m, and including areas of very narrow mining width:-

- After digging down the previously blasted bench on the western wall from 225mRL to 215mRL, excavation will then involve cutting down an 8m wide bench over a 10m height to form the batter from 215mRL down to 205mRL. This narrow bench results from leaving a 12m wide berm at 215mRL.
- At the 270mRL top of the final goodbye cut, working width is only 15m, excluding the ramp

# 16.1.4 Dilution and mining loss

The estimated ore reserve includes adjustment for dilution of 10% at 0.4g/t gold, and mining recovery of 95%. These simple factors are considered reasonable for selective mining using standard drill and blast and 90t excavator, and the geometry of the deposit, characterised by:-

- Relatively continuous ore zones
- Sub-vertical dip
- 2.5m wide to 20m wide

#### 16.1.5 Cut-off parameters

• The ore reserve is defined by cut-off grades of 1.361 g/t gold for oxide ore and 1.471 g/t gold for transitional ore, fresh ore and stope tailings fill. These are head grade cut offs that are applied to the diluted block model grades.

- These cut-offs are based on the following key assumptions:-
  - AUD\$2200/oz gold price
  - Processing recoveries of 80% for oxide and 74% for transitional, fresh and stope fill.
  - Ore costs of \$72.96/t, including \$35/t processing cost, as well as crushing, haulage, sustaining capex and admin.
  - Gold selling cost of AUD\$3.71/g
- These are marginal economic cut-off grades that will maximise the undiscounted cash value of the open cut. They are equal to the total ore cost per tonne divided by the net recovered value per gram of gold.

# 16.1.6 Mine sequencing and schedule

- MRL prepared a mining schedule in Excel targeting a feed rate to the processing plant of approximately 38kt per month.
- Prior to commencement of mining a two to three-week Establishment phase will complete preparatory works including clean ups, initial grade control and probe drilling.
- MRL prepared a mining schedule in Excel targeting a feed rate to the processing plant of approximately 38kt per month. Waste will be mined at a rate required to achieve ore production in line with the schedule.
- The open cut will be developed in 5m high benches, commencing at 225mRL bench at the northern end. Two to three benches may be active at any time, accessed from the eastern ramp. This will provide flexibility in work scheduling and help to balance resources.
- The total operational schedule will see works conducted over an approximate 36 week or 9month LOM, with sustainable ore delivery from approximately week 9 onwards.

# **16.1.7** Inferred Resources

The ore reserve does not include Inferred Resources. However, approximately 4,000t of Inferred Resources would be extracted within the proposed open cut design. This additional 1.7% of potential mill feed may represent a small upside to the reserves.

# 16.1.8 As-mined surface

A Dec 2016 MAAS Group File Note expresses uncertainty regarding the extent of previous mining in the northern end of the open cut, which appears to have been partly filled. Accordingly, AMDAD excluded resource in the block model in this area as follows:-

- Blocks north of 650155N have been removed.
- Blocks where Polymetals blast hole drilling was undertaken have been excluded as it is unlikely, they would have been drilled and not mined; north of 6508130N and above 210RL- left side of Figure 16-3.
- Very high-grade blocks (> 8g/t) modelled adjacent to stope north of 6508130N between 200 and 210RL have been excluded right side of Figure 16-3.

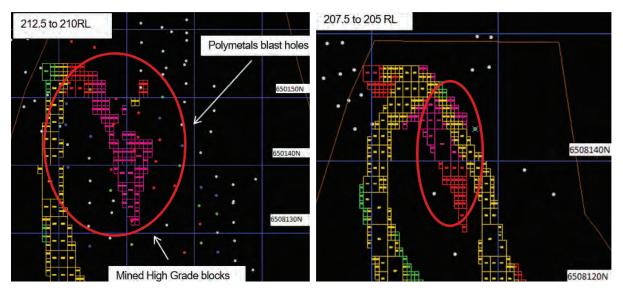


Figure 16-3 Mt Boppy Resource Exclusions at Northern End of Open Cut

AMDAD also notes that the November 2015 end of month survey surface indicates a solid bench from 225mRL to 215mRL on the western wall. However, it is evident from inspection that this bench has been blasted. The estimated ore reserve and associated mining quantities rely on this as-mined surface, other than the northern end exclusions noted above.

## 16.1.9 Mine water management

- Historical records indicate that significant inflows of groundwater into the Mt Boppy open cut pit are unlikely. Pit dewatering requirements should be limited to rain events within the open pit crest and an expected groundwater inflow of approximately 12 l/s.
- Pit dewatering is planned to be managed using a leap frog system of in-pit sumps and high volume/high head diesel pump, with water being pumped to either the purpose-built evaporation and sediment ponds or used as dust suppression in and around the open cut operational areas.
- Water management structures such as cut-off drains, bunds and culverts will be established to help prevent surface run-off from entering the open cut. They will be implemented in line with the site Surface Water Management Plan.

# 16.1.10 Mine infrastructure

Mine infrastructure and services are described in Section 18.1.

### 16.2 MANUKA

This Item is not applicable for this report.

# **17 RECOVERY METHODS**

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020).

# **17.1 PLANT DESCRIPTION**

The Wonawinta silver plant was designed to process circa 850 ktpa of a blend of soft clays and fractured limestone followed by harder limestone basement rock. The original flowsheet was modified by Cobar Consolidated Resources (CCR) when more competent ores were mined earlier than expected. The plant was commissioned in 2012 (modified in 2013 with addition of small 400kw ball mill) and upgraded by Black Oak Minerals in 2014/15, with the addition of a larger 1800kw powered ball mill.

Black Oak Minerals variously treated silver ore only, a combination of silver ore and Mt Boppy gold ore and then Mt Boppy gold ore only in September to November 2015.

The plant is was refurbished by Manuka Resources earlier this year (Figure 17-1). The process plant is now considered to be in a good operating condition with a total of approximately \$5m expended on the refurbishment. As at the date of this report 12,545 tonnes of Mt Boppy gold ore has been fed into the mill consisting of low grade commissioning ore and feed grade ore.



Figure 17-1: Aerial view of the Wonawinta plant.

# 17.1.1 Crushing

Crushing is being carried out by a contractor at the Mt Boppy site. The run of mine ore is crushed to a top size of 16mm to 20mm targeted at a rate of approximately 35,000 tonnes per month. Currently, the contractor is crushing the 60,934 tonnes at 2.52 g/t of previously stockpiled material. The ore is trucked to a fine ore stockpile at the Wonawinta site and being fed into the plant.

Operating procedures are in place to remove wood contamination.

# 17.1.2 Grinding circuit

From the fine ore stockpile, a front-end loader reclaims the product to a feed hopper, from where it is conveyed to the ball mill. The feed tonnage rate is regulated by a belt weightometer.

The ball mill has Inside Shell dimensions of 4.0m diameter by 6.7m length and driven by a newly installed replacement 1800 kW motor through a gearbox which is direct coupled to the mill pinion. Mill speed is 16.34rpm. Calculations confirm the expected capacity to be ~58tph of new feed, based on the expected crush size of 80% passing 16mm.

The mill is rubber lined and is charged with a mix of 80mm and 40mm grinding balls. Water is added to the mill feed chute, and the mill discharge.

Ground ore is discharged from the mill and is screened through the mill trommel. Oversize (scats) are discharged to a hopper at ground level and are periodically recycled back to the mill via the feed hopper. The ball mill discharge pumps consist of two Warman 8/6 AH pumps (duty/standby) fitted with variable speed drives. These units pump to a cluster of six Weir-Warman 250 mm diameter cyclones with three to four cyclones to be operated at any one time. Cyclone underflow, containing coarse particles, is returned to the ball mill feed.

Cyclone overflow gravitates to the trash screen. The target particle size in the cyclone overflow is 80% finer than 53 microns. The trash screen is fitted with a 0.8mm polyurethane screen cloth. Oversize trash (typically wood pulp and plastic) falls to a trash hopper, is collected and disposed. Screened slurry discharges to the leach feed pump hopper and is pumped to the CIL circuit.

A second, 400 kW, ball mill is available and has been operated in past flowsheets. It is intended to bring this ball mill on-line after start-up of the main plant circuit.

There is an extensive gravity circuit available, but this is not envisaged to be used. Processing of coarser streams would result in potential displacement of free gold to a sulphide concentrate. Processing of CIL tailings is not likely to be effective due to the fineness of grind targeted.

# 17.1.3 CIL circuit

The installed CIL circuit at Wonawinta consisted of two 1,000 m<sup>3</sup> tanks and four 450 m<sup>3</sup> tanks to treat up to 120 tonne/hour of silver ore. For the Mt Boppy gold ore, at a rate of 57 tonne per hour, the tanks have been reconfigured to operate one 1,000 m<sup>3</sup> tank and three 450 m<sup>3</sup> tanks to give a residence time of approximately 20 hours. Laboratory leach data indicates a 14-hour leach time requirement. Either of the unused tanks can readily be brought back on-line if required.

All tanks are operated as carbon in leach tanks, where in each tank the leaching of gold with sodium cyanide occurs simultaneously with the adsorption of the gold onto activated carbon. Inter-stage screens are installed in all tanks, which allows the passage of slurry to the next tank while retaining the carbon. Loaded carbon is fed counter currently to the slurry via recessed impeller pumps. Loaded carbon from the first CIL tank is regularly pumped over the loaded wash screen and delivered to the acid wash column prior to the stripping plant.

The two main reagents used in the CIL section are hydrated lime and sodium cyanide solution. The quicklime is added to the ore on the ball mill feed belt from a lime silo by a variable speed screw feeder controlled manually to give the required pH in the CIL section. Sodium cyanide is added to the feed to CIL tank 1 via a variable speed centrifugal pump. The cyanide flowrate is controlled manually by adjusting the speed percentage output. The cyanide concentration in tank 1 is measured automatically by an online cyanide monitoring unit and is also checked manually by operator titration.

The slurry tailings from CIL tank 4 are discharged through a trash screen to the plant tailings pumps, where ferrous chloride is added in order to obtain the required WAD cyanide levels during discharge. Tailings are disposed by pumping to an existing paddock style tailings storage facility. Pumping capacity for the new lift has been reviewed. The existing 6/4 pump, 110kW configuration is adequate for the current new lift RLs and pipe lengths. However, an update to the piping from the pumps to the base of the dam wall is being undertaken to increase velocity to lessen the possibility of blockages in the pipework. The 355mm diameter piping currently installed is being replaced with 160mm diameter piping.

The Environmental Protection Licence (EPL) requirement for WAD cyanide is for 100% of the measurements to be below 30 ppm and for 90% of the measurements to be below 20 ppm. For the month of November 2015, the process plant achieved 100% of the measurements below 20 ppm, when running on Mt Boppy ore.

## 17.1.4 Tailings storage and water reclaim

The Wonawinta TSF is a turkey's nest type impoundment (situated north of plant) designed by AECOM Engineers. The northwest and east embankments are keyed into in-situ sequences in the northeast corner where elevations are higher, and which form the northern boundary of the storage. The TSF has a central concrete decant structure, which can be accessed by a causeway extending off from the TSF east embankment. Because of the favourable topography and location of the TSF relative to the Process Plant, a gravity decant system was constructed to remove excess water from the TSF (rather than a pumped decant system). The gravity decant drainage pipe discharges the excess water through a conduit passing beneath the Stage 1A embankment and embedded into the natural foundation. The reclaimed water is returned to the Process Plant for reuse from a dedicated process water pond/tank.

AECOM engineers inspected and assessed the current condition of the TSF facility between 25 September and 27 September 2019 during the TSF Stage 2 Design geotechnical investigations. The TSF inspection has been conducted in accordance with the requirements of the NSW Dam Safety Committee (DSC) for Type 2 Surveillance Reports ('DSC2C Surveillance Reports' and 'DSC3F Tailings Dam; Intermediate Report Requirements – D19') and ANCOLD Guidelines on Tailings Dams, July 2019. The TSF has approval for seven upstream lifts to take to a final height of 279.5 AHD.

A new lift is currently in construction to a height of RL 264.20, a height of 2m from current crest level at RL 262.20. This will provide a volumetric holding capacity of some 1,000,000 m<sup>3</sup> before additional lifts are constructed. Expected production from the Mt Boppy mine totals 323kt over approximately 40 weeks. Calculated volume of settled tailings is 220,000 m<sup>3</sup>.

The deposition methodology is in line with past Wonawinta operations and will involve perimeter piping and spigot, feeding to a central decant for water recovery.

The Stage 2 lift is expected to be completed in late May. Initial operations will utilise existing capacity in and around the decant. Modifications have been made to the North/East quadrant to accept tailings during start-up. This will allow the plant to be commissioned while the remaining construction works of the lift are being completed. The corner quadrant has been modified to store approximately 2 to 3 months of tails in a "commissioning cell", while still maintaining the water decant system and allowing the TSF to operate as per requirements.

# 17.1.5 Elution and Goldroom

The Wonawinta silver plant has an 8 tonne, carbon stripping circuit utilising zinc precipitation of silver from the strip solution. For the Mt Boppy gold ore however, it is intended to install a modular stripping plant which consists of a 1.5 tonne carbon capacity pressure stripping vessel, a gas fired

boiler and an electro winning cell and associated filter. This will achieve better control in the gold elution phase due to the smaller quantities of carbon to be processed than using the existing configuration.

Due to the delivery schedule for the purchased plant – to be supplied by Gekko-Cadia - prior to the installation of the modular unit it will be necessary to custom strip some loaded carbon for a period of 4-6 weeks. Alternatives have been evaluated by MRL based on custom stripping by a Perth based service provider .

The modular carbon stripping unit is a Zadra type system. At the completion of the process, as judged by solution assays, the electrowon sludge is filtered, dried and smelted to a dore gold bar. Dore will be transported via security contractor to the ABC refinery located in Sydney.

The stripped carbon is pumped from the column to the reactivation kiln hopper. The kiln is operated at a controlled temperature, up to 750 deg C, in order to re-generate the carbon activity prior to the carbon being pumped back into CIL tank 4.

# 17.1.6 Reagents

## 17.1.6.1 Sodium Cyanide

Sodium cyanide is delivered in shipping containers as bulka bags. The containers are stored in a fenced yard. As required, the bulka bags are transported to the cyanide bunded area where the bags are split, the cyanide mixed with water in an agitated tank and the mixed solution pumped to a holding tank. Two reagent pumps are available to deliver cyanide to the CIL tanks and the stripping circuit.

# 17.1.6.2 Hydrochloric Acid

Bulk hydrochloric acid solution is delivered to a chemical storage tank located in a bunded area. The acid solution, together with dilution water, is pumped via chemical pumps to the dilute acid storage tank, located next to the acid wash tank.

# 17.1.6.3 Caustic Soda

Bulk caustic soda solution is delivered to a chemical storage tank located in a bunded area. The caustic solution, together with dilution water, is pumped via chemical pumps to either the dilute caustic tank, located next to the acid wash tank, or the stripping circuit.

#### 17.1.6.4 Hydrated Lime

Hydrated lime is delivered by bulk tanker and is blown into the lime silo. Lime discharge is controlled by a variable speed screw feeder discharging onto the ball mill feed belt.

#### 17.1.7 Process control

A basic Citec system is installed in the process plant. This system is mainly used to monitor variables such as motor stop/start, bearing temperatures, oil pressures, cyclone pressures and slurry density, but is also employed to control ore feed rates and ball mill discharge sump levels. Additional control systems will be considered throughout operations and installed if economic.

#### 17.1.8 Assay laboratory

The Wonawinta site has extensive sample preparation, assay laboratory, and testing facilities. The laboratory will provide assay services for grade control at Mt Boppy and plant results at Wonawinta. The laboratory is equipped with XRF and AAS units; and will also provide wet chemistry results (titrations), and metallurgical testing (sizings and moistures). The laboratory also has an ashing

furnace for carbon analysis. Bottle rollers provide cyanide leach facilities for grade control, whereas plant samples are digested by aqua regia.

## **17.2 PLANT REFURBISHMENT**

Siteforce Australia, an engineering maintenance and construction group, were engaged in September 2019 to provide process plant refurbishment services.

This included:

- Procurement and replacement of equipment,
- Pressure cleaning of leach tanks,
- Overhaul and rebuilds to pumps, tanks, ball mill, vibrating screens and agitators,
- Structural repairs to the fine ore bin, ball mill feed conveyor chutes and hoppers,
- Renovation and refurbishment of the camp.

The main modifications to the Wonawinta circuit in the current refurbishment are:

- The installation of a new ball mill motor (ABB).
- Refurbishment of the ball mill gearbox.
- Refurbishment of the ball mill pinion gear.
- The use of only one large CIL tank and three of the smaller CIL tanks. This configuration gives sufficient solids leach residence time. The other tanks can easily be added to the system if required.
- The incorporation of the 1.5 tonne modular stripping/electrowinning plant. This modular unit is considered to have a high re-sale value at the completion of gold ore processing.
- The installation of new and more fuel efficient gensets to reduce power OPEX and improve reliability.

#### **17.2.1** Site inspections

Craig Brown of Mining Associates conducted an inspection visit to both the Mt Boppy and Wonawinta sites on January 28, 2020 in the company of Haydn Lynch of MRL.

#### 17.2.1.1 Mt Boppy

The Mt Boppy inspection tour was conducted by site geologist – Craigh Fittock.

Of relevance to this section on processing, it was observed that the crushing contractor had mobilised and commenced processing of stockpiled ore. Haulage of crushed ore to the Wonawinta site had commenced.

#### 17.2.1.2 Wonawinta process plant

The Wonawinta inspection tour was conducted by Site Manager – Dave Power, with Contract Metallurgist – Dave Foster. Others met were metallurgist – Joe Dwonczyk, and Site Administrator – Jodie McQuillan.

Siteforce had demobilised from site. MRL have mobilised individual contractors and committed to completing the remaining refurbishment tasks directly.

A selection of the completed works was sighted:

- Hire gen sets installed,
- New mill motor was on site awaiting installation and testing,

- Replaced mill trommel,
- Refurbished cyclone pack,
- Refurbished trash screen,
- Refurbished intertank screens in CIL tanks (CIL tanks were being water tested),

Some major works remained outstanding (at the date of site visit), including:

- Fitting of new feed conveyor belt,
- Completion of the installation of the replacement motor and gearbox for the Ball Mill,
- Tailings wall lift and piping installation,
- Delivery of modular stripping and electrowinning plant.

# 17.2.1.3 Comments:

The Wonawinta plant was restarted in early April 2020 and appears to have progressed relatively smoothly with typically standard commissioning issues having been resolved. The month to date metallurgical report MA have reviewed appear in line with expectations for early stage plant operations.

MRL have recruited experienced personnel to undertake the Wonawinta plant recommissioning and ongoing operation.

# **18 PROJECT INFRASTRUCTURE**

This Section is summarised from the Mt Boppy Implementation Plan prepared by Manuka Resources (Griffith, Foster, Fittock, Power, & Lynch, 2020). Both sites are well located with easy access. Mt Boppy mine site has sealed road access to the mine gate, some 43km east of Cobar. The Wonawinta project is 100 km road distance from Cobar, mainly on the Kidman Way, with the last 30km into the project being on Company maintained shire council roads.

The Mt Boppy mine is situated in the historic village of Canbelego which grew up to support early underground operations over 100 years ago. Only three to six residents remain, all supportive of continued operations. The Wonawinta project has no neighbours in line of sight.

## **18.1 MT BOPPY**

Mine infrastructure and services, shown in Figure 18-1, will include the following:-

- Run of mine (ROM) Stockpile Area, including
  - Removal of timber and trash from historical mining,
  - Ore crushing: Crushing will be carried out by a contractor. The ROM ore is crushed to a top size of 16mm to 20mm at a rate of approximately 38,000 tonnes per month.
  - The crushed ore is stockpiled then trucked to a fine ore stockpile at the Manuka processing plant site 100km by road south of Cobar. The approximately 150km haulage route is predominantly sealed road, north-west from Mt Boppy along Gilgunnia-Canbelego Road ,Rosevale Road, west along the Barrier Highway to Cobar, south along Kidman Way, then west along the Manuka access road.
- Mine Facilities Area, including
  - $\circ\;$  containerised site workshop facility, equipment and tooling, welders, compressors, equipment stands
  - o lubricant storage and dispensing
  - o tyre change
  - fuel storage and dispensing
  - equipment parking areas and planned wash-down.
- Demountable-type mine office and facilities, potable water, building maintenance and cleaning, crib supplies, site radios supply and repair, satellite internet with 3G backup, mobile phones, printers, computers, and other IT related items.
- Sewerage or waste removal and disposal.
- Camp and associated facilities are located at the Canbelego town across Gilgunnia-Canbelego Road from the Mt Boppy Mine Site entrance. This includes 40 self-equipped single rooms, well-equipped kitchen, catering for approximately up to 35 people, well-equipped laundry and storage rooms.
- Power supply from diesel powered generators, including 150kVA diesel generator supplying the Mine offices, and separate generator to be mobilised by the mining contractor for the Mine Facilities Area, kitchen and camp rooms are powered from the local mains supply.
- Lighting for night time operations
- Water management structures, pumps and pipes as described under Mine Water Management above.

Note that explosives storage will not be required. Instead, explosives and accessories will be brought to site as required for each shot by the blasting contractor.



Figure 18-1 Mt Boppy infrastructure

#### **18.2 WONAWINTA**

#### **18.2.1** Site aircraft access

In addition to road access the Wonawinta project has a 1,200m graded airstrip suitable for landing aircraft up to King Air size. The strip has been noted with The Royal Flying Doctor Service for speedy dispatch if required.

#### 18.2.2 Wonawinta power supply

A set of 6 x 500kva new Cummins diesel generators are in place for the Ball Mill circuit. At any time, four of these units will generate the required 1800Kva to operate the ball mill on start-up and normal run operations. The remaining two units are designated standby generators to allow redundancy for servicing and unexpected breakdowns. This configuration may change when the secondary mill is required, as there will be an additional 750Kva required.

A set of 3 x 850Kva existing Cummins diesel generators power all the remaining site (excluding the 2 x mills). At any time, two of these units are in duty to run the non-grinding circuits in the process plant, the gold room, workshop/store and all the administration buildings. The remaining generator is a designated standby generator to allow redundancy for servicing and unexpected breakdowns.

Power for the Wonawinta camp is supplied by two x 250Kva Cummins diesel generators. One unit in duty and one unit as a designated standby generator to allow redundancy for servicing and unexpected breakdowns. Power for the Wonawinta water bores is supplied by three x 150Kva Cat generators and one x 250Kva Cummins generator. Within these units 2 x 150Kva generators are designated as standby.

All generators run off an automated fuel system supplied by diesel directly fed from the site tanks and automatically topped up when a low trigger point is reached. Rural Grid power is only connected

to the "Manuka" homestead. The Moomba to Sydney gas pipeline is situated some 10km to the south and could become a future power source.

#### **18.2.3** Communications

Communications for both sites are controlled through an NBN sky muster system with 3G back up from the nearest Telstra tower. Boosters are used throughout the site to access reliable network and phone connections. Site also has an emergency response satellite phone that can be utilised if there is a failure of the communication systems due to unforeseen circumstances. Personal emergency beacons are utilised at Wonawinta. Regular internal communications at both sites are run through a UHF radio system.

## 18.2.4 Water

The Wonawinta project's process water is supplied by four bores on the neighbouring property, "Wirlong", a distance of circa 3.5km south of the plant. The pipeline route is controlled under Crown Lands Licence LI572570. Approvals for groundwater extraction are from two Water Access Licences (WAL).

- WAL 30322 Issued by NSW Office of Water provide entitlement to 750MLfrom the Kanmantoo Fold Belt MDB Groundwater Source.
- WAL 36531 Issued by NOW providing entitlement to 300MLfrom the Lachlan Fold Belt MDB Groundwater Source.

Water flow rates are sufficient for circa 1mtpa oxide processing. Bores are powered by diesel gensets and inspected regularly. Submersibles were inspected in December/January 2020 and any due maintenance was carried out.

Wonawinta potable water is supplied from a reverse osmosis plant. This system was extensively refurbished during the recent rebuild, including new membranes and filtering systems, plus additional new pumping systems. Treated water is only required in smaller volumes for use in the elution circuit as the front end of the plant uses raw water.

#### 18.2.5 Security

Significant work will be carried out on the gold room at the Wonawinta site, in line with the required improvements to accommodate the new elution/electrowinning systems. Additional security to be looked at will be:

- Procedures for entering, working in, and exiting the gold room,
- Additional designated accountable operators to produce the dore,
- Refurbishment of the CCTV systems to ensure all activities are recorded on a secure loop system,
- Additional work to the access points to the gold room as well as access to the vault.

#### **18.2.6** Reagent storage

Reagent storage at Wonawinta site is currently in secure sea containers. Each container is individually locked and inside an existing fenced and bunded compound. Reagents are controlled through the stores system (MEX) and stocks are adjusted to ensure accurate history of use and to eliminate the possibility of running short of supplies.

#### 18.2.7 Hydrocarbon management

Camp diesel is through a self-bunded 70,000 litre Transtank, which transfers to a 4,000-litre generator diesel tank. The system is fully automated and is checked daily through site prestart to log overall fuel burn and tanks levels.

Process plant supply is through three 70,000 litre (210,000 total capacity) self-bunded Transtanks which auto transfer to two separate generator supply tanks. All diesel transfer lines are hard run pipes in dedicated cable trays, and levels in all these tanks are also checked daily in pre starts. Mobile fleet supplies are distributed from the same tanks with toggle controlled bowser.

#### 18.2.8 Buildings

Several good condition relocatable buildings, consisting of administration buildings, first aid room, meeting/conference room, toilet, change house and storage rooms are located at both the Mt Boppy and Wonawinta sites. Two large sheds house a gold room, workshop and store adjacent the main office complex at Wonawinta. The plant has a control room, MCC rooms, laboratory and several container storage facilities.

## 18.2.9 Camps

Camps are located at Mt Boppy and Wonawinta. The camps are approximately 6 years old and have been utilised for a total of approximately 3 years. The Mt Boppy camp consists of 40 self-equipped single rooms. A further 64 self-equipped single rooms and 6 oversize disabled rooms are at Wonawinta. Kitchens are a very well-equipped, with the ability to accommodate up to 35 people. At Wonawinta there is a fully equipped recreational room with a gym, pool table, dart board, and big screen TV. Both sites also have a well-equipped laundry and storage rooms.

#### **18.2.10 Emergency services**

Existing site emergency services consist of an ambulance and fully equipped first aid room. A landing strip at Wonawinta can accommodate the RFDS air ambulance during suitable weather conditions. All personnel on site will be required to obtain basic first aid qualifications, and there will be an established emergency response team located on site once fully manned. A fire pump setup and hydrants are installed around the process plant. The site also has a satellite phone and personal EPIRB for use by any personnel.

# **19 MARKET STUDIES AND CONTRACTS**

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020). All gold products are expected to be further refined at ABC Refinery in Sydney. Refining contracts have been executed. Deductions due to payable content, treatment charges and logistics have been initially estimated at \$125,000 for a \$50M revenue. Insurance cost estimates are also required.

#### 20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020). MRL have maintained approvals in good order and have established plans and procedures to ensure compliance with environmental operating conditions and management plans.

#### 20.1 SITE APPROVALS, LEASES AND LICENCES

The relevant consents, authorisations and licences held by Manuka Resources for the Mt Boppy and Wonawinta project sites are summarised in Table 20-1 (Griffith, Foster, Fittock, Power, & Lynch, 2020).

#### 20.2 MINE OPERATIONS PLAN (MOP)

Mine Operation Plans (MOP) have been reviewed and updated for both the Mt Boppy and Wonawinta project sites based on the intended progression of site activities. Please refer to the current Mines Operation Plans for both the Mt Boppy and Wonawinta project sites for actions being undertaken to satisfy operational environmental requirements; such as monitoring, and the progressive rehabilitation of site. These plans were updated and submitted to NSW Department of Planning, Industry and Environment (Resources Regulator) in January 2020. Operating cost estimates (Administration) include allowances for Environmental monitoring and dayworks.

#### 20.3 ENVIRONMENTAL POLICY AND MANAGEMENT SYSTEM

The existing Manuka Environmental Management System will continue to be actioned, reviewed and updated across the sites to manage and maintain operational standards with regard to environmental site issues. The EMS is located within the current HSE HUB database.

Approval/Lease/Licence	Issue Date	Expiry Date	Details / Comments				
Development Approvals							
Development Consent 2011/LD-00070-Rev1	27 July 2015	Not Specified	Granted by Cobar Shire Council for the extension and operation of the mine including mining of approximately 630,000t of ore, management of potentially acid forming waste rock, transportation of ore to the Wonawinta Mine, construction of temporary mine water storage dams and 24 hour 7 days per week operations.				
Development Consent 2012/LD-00034	22 November 2012	Not Applicable	Granted by Cobar Shire Council for the expansion of the off-lease mining camp.				
Mineral Authorization's*		1					
Gold Lease 3255	20 May 1926	20 May 2033	Granted by NSW Trade and Investment (NSW T&I) incorporating 8.281ha with no surface exceptions or depth restrictions.				
Gold Lease 5836	15 June 1965	15 June 2033	Granted by NSW T&I incorporating 6.045ha with no surface exceptions or depth restrictions.				
Gold Lease 5848	15 February 1968	15 June 2033	Granted by NSW T&I incorporating 8.625ha with no surface exceptions or depth restrictions.				
Gold Lease 5898	21 June 1972	12 December 2033	Granted by NSW T&I incorporating 7.512ha with no surface exceptions or depth restrictions.				
Mining Lease 311	08 December 1976	12 December 2033	Granted by NSW T&I incorporating 10.117ha with no surface exceptions and a depth restriction of 3m.				
Mining Purpose Lease 240	17 January 1986	12 December 2033	Granted by NSW T&I incorporating 17.8ha with no surface exceptions and a depth restriction of 2m.				
Mining Lease 1681	12 December 2012	12 December 2033	Granted by NSW T&I incorporating 188.1ha with no surface exceptions or depth restrictions.				

# Table 20-1: Consents, authorisations and licences held by Manuka Resources for the Mt Boppy and Wonawinta project sites.

Approval/Lease/Licence	Issue Date	Expiry Date	Details / Comments
Other Approvals & Licence	s		
Environment Protection Licence No. 20192	10 January 2013	Not Applicable	Issued by the NSW EPA under the <i>Protection of the Environment</i> <i>Operations Act 1997</i> . Current Licence version dated 20 February 2019.
Groundwater Licence 85BL256088	24 May 2011	Not Applicable	Issued by the (then) NSW Office of Water (NOW) for monitoring bores PBP001, PBP003, PBP004, PBP018, PBP019 and PBP020.
Groundwater Licence 85WA752612	16 January 2012	16 March 2025	Issued by the (then) NOW for the water supply works associated with three water supply bores within Lot 7301 DP 1170536.
Groundwater Licence 85WA753524	10 June 2013	06 June 2023	Issued by the (then) NOW for the water supply works associated with excavation of the open cut pit.
Water Access Licence WAL30045	14/06/2012	Not Applicable	Issued by the (then) NOW providing entitlement to 250MLfrom the Lachlan Fold Belt MDB Groundwater Source.
Development Approvals			
Development Consent 2010/LD-00074	1 June 2011	Not Specified	Determined by JRPP on 24 May 2011 and issued by Cobar Shire Council on 1 June 2011. DA 2010/LD- 00074 has been subsequently modified on the following occasions: 29 February 2012; 6 November 2012; and 9 September 2015.
Mining Authorisations*	•	•	
Mining Lease 1659	23 November 2011	23 November 2032	Granted by the (then) Minister for Resources and Energy for recovery of Copper, Gold, Lead, Silver, Zinc. ML1659 incorporates an area of 923.8ha.
			ML1659 was originally granted to Silver Corporation of Australia Pty Ltd (a subsidiary of CCR). The lease was then transferred to BOKon 16 December 2014 and subsequently to Manuka Resources Limited on 22 December 2016.
Exploration Licence 6155	17 November 2003	17 November 2021	Incorporating a combined 69 units authorising exploration for Group 1 minerals.
Exploration Licence 7345	25 May 2009	25 May 2022	
Exploration Licence 7515	7 April 2010	7 April 2022	
Other Approvals & Licences	· ·		
Environment Protection Licence No. 20020	14 November 2011	Not Applicable	Originally issued by the EPA to CCR on 14 November 2011 and transferred to BOK14 October 2014. Following acquisition by the Company and completion of the requirements of special conditions, the Licence was subsequently transferred to Manuka Resources Ltd effective 1 October 2018. The
			current Licence version date is 31 July 2019.
Water Access Licence 36531	20 December 2016	Not Applicable	Issued by NOW providing entitlement to 300MLfrom the Lachlan Fold Belt MDB Groundwater Source.
Water Access Licence 30322	20 December 2016	Not Applicable	Issued by NOW providing entitlement to 750MLfrom the Kanmantoo Fold Belt MDB Groundwater Source. The nominated works specify Water Supply Works Approval 85WA752614.

# **21 OPERATIONAL MANAGEMENT**

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020).

#### **21.1 MANAGEMENT SYSTEMS**

MRL has established an appropriate management system and structure to ensure sound operation of the project. MRL personnel will provide management for all site administration and purchasing, mine planning/engineering, geological and exploration management, grade control, survey, process plant operation, crushing and grinding, product packing and logistics for product sales. The site will rely on corporate support from MRL in some accounting areas.

Mining will be conducted by reputable contractors, while consultants and other small contractors are expected to assist on site as required. Any construction or project activities will be reviewed on a case by case basis, but will either be managed by MRL or by suitable construction contractors. Detailed systems and procedures either have been, or are being developed for:

- HSE Management
- Risk Management
- Emergency Management

## 21.2 HUMAN RESOURCES

## 21.2.1 Manpower

An appropriate organisational chart has been developed with suitable manning to undertake all MRL responsibilities. At full production, total employee numbers for site is estimated to total 61. This is made up of 46 employees for MRL and 15 contractors. It is the intention for the workforce to be local, where possible. Hours of operations are expected to be 24hrs per day, 7 days a week for the plant and mining to be conducted on day shift only. All employees will be employed under common law contracts.

#### 21.2.2 Recruitment

Key personnel have already been recruited. The region around the mine sites is an established mining area, and quality experienced candidates have been sourced for all roles.

# 22 CAPITAL AND OPERATING COSTS

This Section is summarised from the Mt Boppy Implementation Plan (Griffith, Foster, Fittock, Power, & Lynch, 2020).

## 22.1 MT BOPPY ORE TREATMENT

The MRL developed "Mt Boppy Gold Project Implementation Plan" ('The Plan') presents detailed estimates for costs to prepare the operation for production, and ongoing operating costs. The Plan also presents project Completion Schedule and Estimated Production Schedule. These envisage short periods for Plant Pre-Start and Commissioning and rapid ramp-up in production which appear to have been met. Crushing and haulage activities have been in place since November 2019 with gold ore feeding into the plant since early April 2020.

# 22.1.1 Capital costs

## The Estimated Mining Capital Cost is - \$688,200,

This includes contingency of \$150,000 and significant geotechnical activities – cable bolting, piling, and shotcreting.

## The Estimated Process Capital Cost is - \$4,440,000,

This includes first fill reagents, the Gekko elution plant, tailings dam lift, critical spares, remaining refurbishment, various equipment and vehicles to support operations, operator training and minor plant upgrade projects.

## 22.1.2 Operating costs

#### 22.1.2.1 Mining

Cost proposals from Neill Earthmoving have been adopted to calculate the estimated variable Load and Haul and Drill and Blast unit costs. The estimated total unit cost for the contract mining activities equates to:

#### \$5.98/tonne of material (waste + ore) mined , which is \$16.59/tonne processed.

'The Plan' presents the detailed basis for this estimate. Additional owner's costs for labour and administration are included in total cost estimate.

#### Total Estimated Mining Operating Cost is -\$20.80/tonne Processed

#### 22.1.2.2 Processing

Crushing of the Mt Boppy stockpiles has been underway since November 2019. Preliminary costs have averaged approximately \$7.21/ tonne for a product with a P80 of 20mm. Further optimisation reviews have suggested a P80 of 16mm will see a cost benefit for the grinding circuit. The cost estimate has been increased to cater for the finer product.

#### Estimated Crushing unit cost - \$10.00/tonne Processed

Haulage operations from Mt Boppy to the Wonawinta Plant commenced in December 2019. Urquhart Haulage contractors are performing the works (as per current contract). The unit rate is 13c/km per tonne for loading of trucks, approximately 150km haulage to Wonawinta, unloading, and stockpile management.

#### Estimated Haulage unit cost - \$19.50/tonne Processed

Detailed estimates have been developed for Labour, Power, Reagents, Maintenance Materials and Processing Administration to operate the Wonawinta plant on Mt Boppy ore. These have been reviewed and are considered to be robust, unbiased estimates.

#### Total Estimated Processing Plant Operating Cost is -\$34.72/tonne Processed

## 22.1.2.3 Administration

Total Estimated Administration Operating Cost is - \$223,500/month (\$5.83/tonne Processed)

#### 22.1.3 Total site operating costs

Operating costs are summarised in Table 22-1: Site operating costs.

#### **Total Operating Costs Estimate - \$90.85/tonne Processed**

#### Table 22-1: Site operating costs.

Cost Area	Est Cost per Month, Total\$	Cost, \$/tonne Processed
Administration		
Labour	\$91,146	\$2.38
Administration Costs	\$132,356	\$3.45
Sub Total - Administration	\$223,501	\$5.83
Mining		
Mining Owners Labour	\$26,563	\$0.69
Owners Admin – Other	\$135,000	\$3.52
Mining Contractor	\$635,978	\$16.59
Sub Total – Mining	\$797,540	\$20.80
Crushing	\$381,670	\$10.00
Ore Haulage - 150km @ 13c/km	\$744,257	\$19.50
Processing		
Labour	\$404,167	\$10.54
Ball Mill Power	\$204,000	\$5.32
Rest of Plant Power	\$249,333	\$6.51
Reagents	\$357,153	\$9.35
Water Supply (incl in reagents)	\$0.00	\$0.00
Maintenance Materials	\$83,333	\$2.17
Admin – Other	\$31,667	\$0.83
Sub Total - Process Plant	\$1,329,653	\$34.72
Total Site Cost	\$3,476,622	\$90.85

## **23 ADJACENT PROPERTIES**

Adjacent properties are summarised in Figure 23-1.

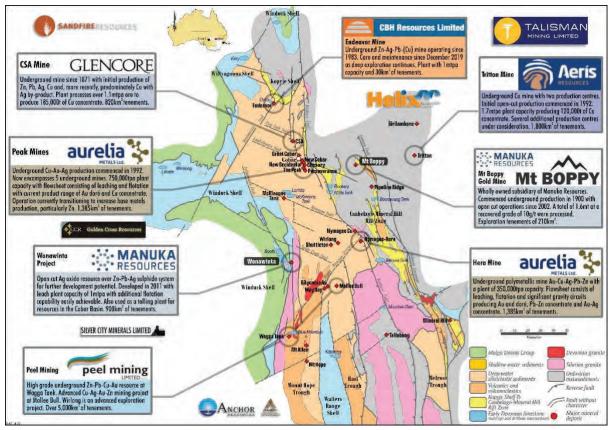


Figure 23-1: Location of Manuka sites (Wonawinta and Mt Boppy Gold Mine) and other operations and companies in the region.

### 24 **RECOMMENDATIONS**

Manuka and Mt Boppy are located in the highly-prospective Cobar belt and early stage targets for exploration for Cobar-style polymetallic (Au-Ag-Pb-Zn-Cu), carbonate hosted Pb-Zn-Ag, and epithermal gold exist on the Properties.

In addition to re-commencement of mining operations at Mt Boppy and processing at Wonawinta, MRL has proposed an exploration strategy focused on identification and evaluation of new nearmine extension mineralisation. A balanced strategy is proposed, comprising brownfields targets on granted mining titles and brownfields and greenfields targets on exploration Licences. MA considers this strategy to be sound.

#### 24.1 EXPLORATION

The Properties comprise a significant tenement holding in the highly-prospective Cobar Superbasin, which have had limited exploration using under modern techniques beneath residual and transported cover.

#### 24.1.1 Mt Boppy

Cobar-style polymetallic deposits are strongly structurally controlled and usually with small but detectable surface footprints. Deposits have significant depth extents (up to 1000m) and in some cases large strike extents with manifestation of multiple pipe-like deposits. Very little effective deep drilling has been undertaken at Mt Boppy to test for depth and strike extents. High grade sporadic drill intercepts and multiple historical mines occur in the camp.

MA recommends that the Mt Boppy-Canbelego gold camp (3x3km footprint) should be evaluated as a whole, integrating geology, a strong understanding of structural and stratigraphic controls (at Mt Boppy and other Cobar deposits), geophysics and geochemical datasets in 2D and 3D.

Other prospects on the wider exploration licence have notably not been tested for gold. There is scope for rapid assessment of areas under cover through application of bedrock Aircore drilling combined with multi-element geochemistry.

### 24.1.2 Manuka

MA recommends that a thorough review of geology, with an emphasis on structural-stratigraphic relationships is undertaken as a first step in the exploration program for further Ag-Pb-Zn mineralisation at Wonawinta. The following tasks are considered high priority:

- Detailed outcrop mapping over the licence area and particularly along the trend of Manuka mineralisation should be a priority. There is no outcrop mapping other than that undertaken by the NSW Geological Survey, and a compilation map by North Ltd geologists in the 1990's.
- Mapping and review of pit geology, with an emphasis on structures that control mineralisation. Limited pit mapping was undertaken during mining of the Manuka and Boundary pits.
- A geological synthesis of the area that uses all available data mapping, remote sensing, geophysics (including seismics) and drilling. Construction of a three-dimensional geological model covering the entire Property would be beneficial in understanding controls on mineralisation and would assist in targeting.
- Assessment of early stage prospects outside the main Ag-Pb-Zn mineralised zone using bedrock Aircore drilling combined with multielement geochemistry. There is a significant tenement holding in a highly-prospective area with sparse exploration using under cover techniques.

Priority targets for exploration for silver-lead zinc mineralisation proximal to and within the current resource area (Mining Lease) can be divided into infill drilling, near-mine extension and other targets outside resource areas:

### 24.1.2.1 Infill drilling

- Undertake mine planning studies on oxide mineral resources within existing pit shells.
- Upgrade of oxide mineral resources from Indicated to Measured and from Inferred to Indicated classification within existing pit shells.

#### 24.1.2.2 Near-mine extension

- Potential oxide mineralisation adjacent to existing pit shells.
- Definition of fresh mineralisation adjacent to pit shells.
- Extensions to fresh mineralisation below and along strike of the pit shells.

### 24.1.2.3 Other targets

- Areas of potential oxide mineralisation (limestone within 50m of the surface) along strike outside the Mining Lease.
- Deeper structural zones within fresh mineralisation along strike outside the Mining Lease, as identified in limited drilling.
- Sampling work north of the Mining Lease in areas associated with high zinc soil anomalies.

Significant untested or only limited tested targets for exploration exist within Exploration Licences adjacent to the Mining Lease as follows:

- Conductive bodies (EM targets) indicative of potential sulphide mineralisation within, and along strike from, the Mining Lease.
- Carbonate-hosted lead-zinc-silver in structural positions other than the main Manuka mineralisation trend, e.g. Smiths Tank Anticline.
- Cobar-style polymetallic (Cu-Au-Pb-Zn-Ag) mineralisation in Amphitheatre Group sedimentary rocks in the northern Property area.
- Epithermal gold mineralisation similar in style to the McKinnons mined gold deposit.

#### 24.1.3 Wonawinta metallurgy

Current understanding of metallurgical parameters is not well defined and does not adequately address the potential for exploiting sulphide and oxide mineralisation in limestone/dolostone. As new mineralisation are identified and resources are upgraded, future test work should seek be prioritised to build on the information available, fill any knowledge gaps and seek to investigate the limestone sulphide mineralisation that has not been included in any test work to date.

The test work program at a minimum should:

- Incorporate a rigorous comminution test work schedule including SMC testing to determine suitability for SAG milling
- Include sighter flotation test work for recovery of lead and zinc:
  - Evaluate dedicated oxide float (hydroxamate) type collector
  - Evaluate mixed collectors for oxide and sulphide flotation
  - Revaluate controlled potential sulphidisation.
- CIL testing
  - Evaluation of grind size against silver recovery

- $\circ$  Confirmatory work on representative samples, variation samples and flotation products
- Tailings Dewatering testing

A minimum of 3 composite samples and 8 variability samples from cored material are recommended, although the final numbers will be determined by reviewing geology. Estimated cost of the test work program is A\$300,000.

#### 24.2 WORK PROGRAM AND BUDGET

Manuka has developed a preliminary work program and budget that encompasses three main objectives:

- 1. Recommencement of mining and processing operations with processing of gold ore mined from Mt Boppy
- 2. Brownfields exploration to delineate near-mine extensions (Wonawinta Ag-Pb-Zn and Mt Boppy Au) with a focus on evaluation on permitted Mining licences
- 3. Greenfields exploration (for Wonawinta Ag-Pb-Zn, Cobar style polymetallic and Epithermal gold) on Exploration Licences.

Table 24-1 summarises the allocation of funds raised via the proposed IPO.

Item	Amount (Minimum)	Amount (Maximum)
Exploration and infill drilling	\$[1,701,000]	\$[3,579,000]
Accrued interest on Convertible Notes	\$[1,485,000]	\$[1,485,000]
Payment for Cancellation of Options	\$[105,000]	\$[105,000]
Working capital	\$[1,007,000]	\$[1,007,000]
Costs of the Offer	\$[702,000]	\$[824,000]
Total	\$[5,000,000]	\$[7,000,000]

#### Table 24-1: Summary of proposed allocation of funds raised from IPO.

Table 24-2 shows the allocation of funds by MRL marked as 'Exploration' in Table 24-1 assuming the maximum of subscription level of A\$7M is achieved. In the event of the minimum subscription of A\$5M being raised, the use of funds per Licence will be reduced accordingly.

In MA's opinion the work program and expenditure proposed on the Manuka and Mt Boppy Properties is appropriate and adequate.

			Use of	f funds
Target	Prospects	Work Description	A\$5M IPO	A\$7M IPO
		Manuka Targets		
Brownfields evaluation of near mine extensions on Wonawinta Mining Title. Wonawinta Style Ag-Pb-Zn	Bimble, Belah, Boundary	Targeting known silver-lead-zinc resources and prospects on permitted ML to extend and identify near-mine extensions. Both oxide and high-grade primary Ag-Pb-Zn sulphide potential will be evaluated. Extensive geophysical coverage (IP, VTEM, Mag) and new structural-stratigraphic interpretations demonstrate strong NE structural (possible feeders) control. Drilling (RC) will be prioritised.	\$900,000	\$1.190.000
Greenfields exploration on exploration licences. Wonawinta Style Ag- Pb-Zn	Smiths Tank, South Boundary, Wonawinta North	<u>Smiths Tank</u> : Western stratigraphic extension of the Wonawinta Ag-Pb-Zn deposit. <u>South Boundary (brownfields)</u> : Drill extension of known Boundary resource south into EL. <u>Wonawinta North</u> : Drill test zinc-rich, silver poor oxide mineralisation and soil anomalies. Aircore and multielement geochemistry.	\$75,000	\$300,000
Greenfields exploration on exploration licences. Cobar-style polymetallic (Au-Cu- Pb-Zn-Ag) and Epithermal gold	Cobar Style: Goldwing, Guzzi, Lerida, and lower priority targets	Multiple greenfields prospects with soil geochemistry anomalies, coincident geophysical anomalies and interpreted favourable structural setting. No or sparse drill follow-up. To test for shallow manifestations of Cobar-style polymetallic mineralisation, an initial program of rapid Aircore and multielement geochemistry is proposed for near-surface targets. RC/Diamond drilling will be used for follow-up and deeper targets.	\$75,000	\$200,000
	Epithermal gold: McKinnons and nearby prospects	Evaluation of structural controls and effectiveness of prior exploration and datasets. Aircore with multielement geochemistry and potential CSAMT geophysical survey to explore for resistive quartz vein zones and extensions of epithermal gold mineralisation.	\$50,000	\$100,000
Study Work	Wonawinta	Metallurgical drilling and test work for new Wonawinta near- mine extensions.		\$120,000
Total Manuka Exploration		\$1,100,000	\$1,910,000	
		Mt Boppy Targets		
Brownfields exploration: Mt Boppy Mine titles and the wider Mt Boppy-Canbelego Gold Camp for gold- rich Cobar-style polymetallic	Mine titles: Boppy Southern extension, Boppy northern extension, Exploration Licence: Mt Boppy South, Birthday, East Wealth of Nations, Canbelego-King, Reid-Rankens	Targeting potential extensions of gold mineralisation on permitted ML/GL to identify additional gold near-mine extensions. Undertake geological and structural synthesis, consider CSAMT geophysics and spectral analysis to facilitate structural and mineralisation model interpretation. Exploration for Gold: Geological and structural synthesis of 3x3km Gold Camp with abundant historical workings not evaluated. Geophysical acquisition: Magnetics, and CSAMT (resistivity to identify potential gold and vein structures). Drilling: Aircore with testing for multi-element geochemistry, lithogeochemistry, spectral analysis. Follow-up RC and oriented diamond drilling (with structural analysis)	\$476,000	\$1,269,000
Greenfields exploration on exploration licences. Cobar-style polymetallic (Au-Cu- Pb-Zn-Ag)	Central Structural Zone: Florida Volcanics, Birthday prospect, Native Dog Hill, Native Cat, Scrubby Tank, C2A	Refine geological model, focus on understanding structural setting and paragenesis of alteration (whether it is barren metamorphic or shows evidence of mineralisation events) through application of multielement geochemistry techniques. Consider spectral analysis to facilitate vectoring. Undertake deeper RC with Diamond tails and oriented core as required.	\$50,000	\$200,000
Greenfields exploration on exploration licences. Cobar-style polymetallic (Au-Cu- Pb-Zn-Ag)	Soil anomalies (Geweroo/Nerang) and Other Targets	Soil targets with no drilling: Initial follow up with Aircore drilling and bedrock multielement geochemistry traverses. Other Targets: Review and consideration of effective data coverage and broader structural setting. Application of Aircore drilling and bedrock multielement geochemistry traverses to enable prioritisation. Drilling as required.	\$75,000	\$200,000
	Tota	I Manuka Exploration	\$601,000	\$1,669,000
	TULA		<b>J001,000</b>	Ş1,005,000

### Table 24-2: Use of funds allocated for exploration.

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### 26 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the Mt Boppy gold and Wonawinta silver-lead-zinc projects, NSW, Australia" and dated 31 March 2020 was prepared and signed by the following authors:

Dated at Brisbane, Qld 28 April 2020

Signed by: Ian A Taylor BSc Hons (Geology) MAusIMM(CP) Competent Person

Signed by: James H Lally PhD, MSc, BSc (Hons) MAIG, MSEG Competent Person

# 27 GLOSSARY OF TECHNICAL TERMS

This glossary comprises a general list of common technical terms that are typically used by geologists. The list has been edited to conform in general to actual usage in the body of this report. However, the inclusion of a technical term in this glossary does not necessarily mean that it appears in the body of this report, and no imputation should be drawn. Investors should refer to more comprehensive dictionaries of geology in printed form or available in the internet for a complete glossary.

"200 mesh"	the number of openings (200) in one linear inch of screen mesh (200 mesh approximately equals 75 microns)
"Ag"	chemical symbol for silver
"block model"	A block model is a computer based representation of a deposit in which geological zones are defined and filled with blocks which are assigned estimated values of grade and other attributes. The purpose of the block model (BM) is to associate grades with the volume model. The blocks in the BM are basically cubes with the size defined according to certain parameters.
"bulk density"	The dry in-situ tonnage factor used to convert volumes to tonnage. Bulk density test work is carried out on site and is relatively comprehensive, although samples of the more friable and broken portions of the mineralised zones are often unable to be measured with any degree of confidence, therefore caution is used when using the data.
"cut-off grade"	The lowest grade value that is included in a resource statement. Must comply with JORC requirement 19 <i>"reasonable prospects for eventual economic extraction"</i> the lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification.
"diamond drilling, diamond core"	Rotary drilling technique using diamond set or impregnated bits, to cut a solid, continuous core sample of the rock. The core sample is retrieved to the surface, in a core barrel, by a wireline.
"down-hole survey"	Drill hole deviation as surveyed down-hole by using a conventional single-shot camera and readings taken at regular depth intervals, usually at least every 50 metres.
"drill-hole database"	The drilling, surveying, geological and analyses database is produced by qualified personnel and is compiled, validated and maintained in digital and hardcopy formats.
"Exploration Target"	Exploration Target (JORC 2012) as a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting, where the statement or estimate, quoted as a range of tonnes and grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a mineral resource.
"g/t"	grams per tonne, equivalent to parts per million
"g/t Au"	grams of gold per tonne
"gold assay"	Gold analysis is carried out by an independent ISO17025 accredited laboratory by classical 'Screen Fire Assay' technique that involves sieving a 900-1,000 gram sample to 200 mesh (~75microns). The entire oversize and duplicate undersize

	fractions are fire assayed and the weighted average gold grade calculated. This is one of the most appropriate methods for determining gold content if there is a 'coarse gold' component to the mineralisation.
"grade cap, also called top cut"	The maximum value assigned to individual informing sample composites to reduce bias in the resource estimate. They are capped to prevent over estimation of the total resource as they exert an undue statistical weight. Capped samples may represent "outliers" or a small high-grade portion that is volumetrically too small to be separately domained.
"inverse distance estimation"	It asserts that samples closer to the point of estimation are more likely to be similar to the sample at the estimation point than samples further away. Samples closer to the point of estimation are collected and weighted according to the inverse of their separation from the point of estimation, so samples closer to the point of estimation receive a higher weight than samples further away.
	The inverse distance weights can also be raised to a power, generally 2 (also called inverse distance squared). The higher the power, the more weight is assigned to the closer value. A power of 2 was used in the estimate used for comparison with the OK estimates.
"JORC"	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (the "JORC Code" or "the Code"). The Code sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The definitions in the JORC Code are either identical to, or not materially different from, those similar codes, guidelines and standards published and adopted by the relevant professional bodies in Australia, Canada, South Africa, USA, UK, Ireland and many countries in Europe.
"JORC Inferred Resource"	That part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.
"JORC Indicated Resource"	That part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.
"JORC Measured Resource"	That part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.
"lb"	Avoirdupois pound (= 453.59237 grams). Mlb = million avoirdupois pounds
"micron (μ)"	Unit of length (= one thousandth of a millimetre or one millionth of a metre).

"Mineral Resource"	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories when reporting under JORC.	
"nearest neighbour estimation" "Inferred"	Nearest Neighbour assigns values to blocks in the model by assigning the values from the nearest sample point to the block attribute of interest. That part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.	
"Ordinary Kriging estimation, or OK"	Kriging is a distance weighting technique where weights are selected via the variogram according to the samples distance and direction from the point of estimation. The weights are not only derived from the distance between samples and the block to be estimated, but also the distance between the samples themselves. This tends to give much lower weights to individual samples in an area where the samples are clustered. OK is known as the "best linear unbiased estimator". The kriging estimates are controlled by the variogram parameters. The variogram model parameters are interpreted from the data while the search parameters are optimised during kriging neighbourhood analysis.	
"oz"	Troy ounce (= 31.103477 grams). Moz = million troy ounces	
"QA/QC"	Quality Assurance/Quality Control. The procedures for sample collection, analysis and storage. Drill samples are despatched to 'certified' independent analytical laboratories for analyses. Blanks, Duplicates and Certified Reference Material samples should be included with each batch of drill samples as part of the Company's QA/QC program.	
"RC drilling"	Reverse Circulation drilling. A method of rotary drilling in which the sample is returned to the surface, using compressed air, inside the inner-tube of the drill-rod. A face-sampling hammer is used to penetrate the rock and provide crushed and pulverised sample to the surface without contamination.	
"RC GC"	Reverse Circulation Grade Control. Reverse Circulation drilling conducted on a tight pattern to control the predicted grade of the blocks to be mined.	
"survey"	Comprehensive surveying of drill hole positions, topography, and other cadastral features is carried out by the Company's surveyors using 'total station' instruments and independently verified on a regular basis. Locations are stored in both local drill grid and UTM coordinates.	
"t"	Metric tonne (1 million grams), " kt" thousand metric tonnes	
"variogram"	The Variogram (or more accurately the Semi-variogram) is a method of displaying and modelling the difference in grade between two samples separated by a distance h, called the "lag" distance. It provides the mathematical model of variation with distance upon which the Krige estimation method is based.	

	This is created by using triangulation to produce an isometric projection of, for	
"wireframe"	example, a rock type, mineralisation envelope or an underground stope.	
	Volumes can be determined directly of each solid.	

# 28 JORC CODE, 2012 EDITION - TABLE 1 WONAWINTA PROJECT

# 28.1 SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation.</li> </ul>	<ul> <li>Reverse circulation (RC), diamond coring (core) and Aircore (Aircore) drilling undertaken by Cobar Consolidated Resources Limited (CCR) was used to obtain over 90% of the samples used for resource estimation. Grade control RC drilling by Black Oak Minerals (BOK) in 2015 was also included. The remaining samples were sourced from diamond, RC and Aircore drilling undertaken by previous explorers Geopeko, CRA, Savage, Pasminco and Triako. The drilling database within the resource area comprises 224 rotary air blast holes, 70 Air Core holes, 1589 RC and 11 core holes.</li> <li>RC and Aircore samples were predominantly collected over one metre intervals and subsampled utilising a rig- mounted cyclone/ cone splitter to provide a 1.5kg to 3.0kg assay sample. Diamond core was halved with a diamond saw, hammer and chisel, or filleted as appropriate to the material, to provide representative assay sub-samples. Aircore samples were sub-sampled every metre using a two-tier riffle splitter.</li> <li>Measures taken to ensure the sample representivity included routine monitoring of sample recovery and RC field duplicates. Assay quality control measures included duplicates, blanks and certified reference standards. In addition the laboratories undertook their own duplicate sampling as part of their own internal QA processes. The available QAQC data demonstrate that the sampling and assaying are of appropriate quality for use in the current estimates.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>All RC drilling used face sampling bits.</li> <li>Core holes were drilled PQ triple tube (83mm core diameter). The diamond holes were surveyed using a multi-shot camera and core orientations undertaken using an Ace orientation tool. The core was photographed in detail, and the core remaining after sampling was used in its entirety for metallurgical test work.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>RC drilling was closely monitored by field geologists and used face-sampling bits, and generally had sufficient air capacity to provide dry, high recovery samples. The RC drilling rigs usually had access to booster compressors.</li> <li>For RC holes visual estimates were made of recovery and wetness. It is estimated that less than 2% of samples were damp or wet.</li> <li>Diamond drilling core recovery was estimated from recovered core lengths and showed an average recovery of 89% within mineralised sections.</li> <li>The available sample recovery data shows generally reasonable recoveries and no relationship between recovery and assay grade, and no indication of significant biases due to sample loss.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the</li> </ul>	<ul> <li>All RC and Aircore samples were logged for lithology, texture, grainsize, colour, alteration, regolith and wetness. In addition core holes were geotechnically logged and had density determinations undertaken. Logging of holes drilled by explorers prior to CCR and BOK was undertaken in a similar manner. CCR routinely photographed all diamond core and RC chip trays. Strip logs were created combining the photographs, depths and analytical data.</li> <li>All the resource drilling has been qualitatively logged with appropriate detail, to support the current Mineral</li> </ul>

Criteria	JORC Code explanation	Commentary
	relevant intersections logged.	Resource estimates, and metallurgical and mining studies.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC hole logs were reviewed and the samples scanned with a field portable XRF analyser prior to the selection of mineralised or potentially mineralised intervals for laboratory analysis. Remaining samples were stored pending receipt of analytical results. The sampled intervals were extended if required.</li> <li>Sub-sampling of RC holes was undertaken using a rigmounted rotary splitter to provide a 1-3kg lab sample. Less than two percent of the samples were damp or wet.</li> <li>Harder sections of PQ core were filleted with a diamond saw. Clay sections of core were sampled with a hammer or chisel, or by filleting with an angle grinder. In all cases the sampled portion represented about 20% of the core or 2kg per linear metre.</li> <li>All samples were sent to an external laboratory (mostly ALS Global - Orange) for preparation and analysis. Samples were dried, crushed and pulverised to get 85% passing a 75um sieve to provide a 0.5g sample for aqua regia digestion with an ICP-AES finish.</li> <li>RC field duplicates undertaken on a 1:40 basis showed acceptable variation and repeatability.</li> <li>Samples sizes are appropriate to the grain size of the silver mineralisation which is predominantly very fine.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples from RC and diamond drilling were sent to ALS laboratories for preparation and analyses. No information from geophysical methods or hand held XRF devices are used in resource estimations.</li> <li>The aqua-regia analyses are considered to be a total extraction given the style of mineralisation. CCR's and BOK's samples were analysed by ALS Global, an accredited commercial laboratory in Orange, NSW. After oven drying, (and jaw crushing of core samples and RC samples with coarse material), the samples were pulverised to at least 85% passing 75 microns. Sub-samples were digested by aqua regia and analysed by ICP for silver, lead, zinc, iron, sulphur, manganese, calcium and magnesium. When results were above upper detection limits the analyses were repeated using a multi-acid digestion and ICP. Quality control methods included field duplicates, coarse blanks and certified standards. Three control samples were inserted for every 20 to 30 samples. The laboratories also maintain their own process of QA/QC utilising standards, repeats and duplicates.</li> <li>QAQC procedures and results for pre-CCR and BOK drilling are not available, although QAQC samples are present in the assay databases. The pre-CCR/BOK drilling only informs a small proportion of the resources.</li> <li>The quality control measures have established that the assaying is of appropriate precision and accuracy for the current estimates.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Reported significant intersections were reviewed by geological staff onsite, and checked by senior geological management, including the Exploration Manager.</li> <li>Six diamond holes and two RC holes were drilled to twin earlier RC and Aircore holes, with satisfactory results.</li> <li>Geological logging data and sampling information is recorded on printed standard forms and then key punched into Excel spreadsheets.</li> <li>Summaries of geological logs, survey and analysis data were electronically merged and validated into a central database in Surpac mining software. Data was viewed and interpreted using Surpac software.</li> </ul>

Criteria	JORC Code explanation	Commentary
		Assay results were not modified for resource estimation.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Qualified surveyors using high accuracy DGPS equipment surveyed all CCR resource drill hole collars. Accessible drill hole collars of previous explorers were re-surveyed by DGPS.</li> <li>Down-hole surveys were normally not undertaken on shallow (usually less than 50m) vertical holes drilled early in the exploration stage. Check bottom-of-hole surveys of 10 vertical RC holes showed less than 1° deflection from vertical (less than 1m horizontal offset). Downhole surveying using a Camteq multi-shot camera was carried out for holes drilled at close spacings (10m x 10m or 20m x 20m) to be potentially used for mine grade control purposes.</li> <li>Diamond drill holes were surveyed down-hole using a single shot camera. There are no strongly magnetic rocks within the deposit.</li> <li>The MGA94 co-ordinate system is used for the mine grid, and for exploration (Zone 55 South).</li> <li>Topographic control for the mine is based on an aerial topographic survey (0.5-1.0m contour interval) together with known land survey control. This provides sufficient accuracy for the current estimates.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>RC hole spacing varies from a 10m x 10m grade control density in areas shortly to be mined, to 40m x 20m and 80m x 40m in the vicinity of pit areas, to 250m x 150m at the southern extremity of the resource zone.</li> <li>The data spacing and distribution establishes geological and grade continuity adequately for the current Mineral Resource.</li> <li>No compositing of sample intervals in the field was undertaken. Samples were composited to 2 metre downhole intervals for resource modelling.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The resource drilling comprises mostly vertical holes, perpendicular or at a high angle to the flat-lying and gently dipping mineralisation.</li> <li>Available information indicates that the drilling orientations provide unbiased sampling of the mineralisation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were placed in sealed polywoven bags for transport by road to the ALS Global Laboratory in Orange, by a commercial transportation company.</li> <li>The laboratory routinely reconciles received sample numbers against sample submission forms and sample number data files.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>All QA/QC data was reviewed on an ongoing basis.</li> <li>In 2008 AMC Consultants reviewed CCR's Aircore QAQC data and the available information from previous explorers, and concluded that the data is acceptable for resource estimation.</li> <li>In 2010 BM Geological Services reviewed the data and concluded that the data quality was acceptable for use in resource estimation, and that the QAQC was adequate.</li> <li>The data was again reviewed in 2014 by MPR Geological Consultants and found the field duplicate, standard, blank and repeat assays confirm the reliability of sub-sampling and assaying.</li> <li>SRK Consulting carried out an audit of this resource estimate by MA. A copy of SRK's audit findings is included</li> </ul>

Criteria	JORC Code explanation	Commentary
		as an appendix to the report to which this Table 1 refers.

### 28.2 SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>ML1659 is held by Manuka Resources Limited (MRL) MRL is holder of 7 exploration licences in the district. The exploration Licences are EL 6155, EL 6302, EL6623, EL 6482, EL 7515, EL 8498 and EL 7345.</li> <li>The property Manuka, on which the reserves and resources are situated, is owned by MRL.</li> <li>The resources occur in the Western Lands Leases of NSW where Native Title has been extinguished. However, where disturbance could occur by mining operations or drilling, Aboriginal heritage surveys are undertaken in consultation with traditional owners.</li> <li>The Company notes that no land within the licence area may be classified as sensitive land. No further approvals other than those required under the Mining Act 1992 are required.</li> </ul>
Exploratio n done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Stream sediment sampling by Geopeko in 1989 resulted in the discovery of significant base metal sample values. Drilling programs (RAB, RC and diamond) were carried out by Geopeko, CRA, Savage Resources, Pasminco and Triako. Follow up work by CCR resulted in definition of the Wonawinta silver - lead deposits. BOK completed some RC grade control drilling in one open pit.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Wonawinta silver-lead-zinc project, is a carbonate-hosted Pb-Zn-Ag deposit with affinities to MVT-style mineralisation. The primary host is the dolomitised upper fossiliferous portion of the Booth Limestone member of the Early Devonian Winduck Group.</li> <li>Oxide Ag-Pb-Zn mineralisation is developed as a gently-dipping blanket up to 160m wide and averaging 13m thick on and around the contact between the Booth Limestone and an overlying thick quartz-kaolinite-illite- muscovite clay sequence. Discrete silver minerals are rare with the bulk of the silver associated with lead and iron oxides and sulphates, and lead and zinc carbonates and dolomite. Primary mineralisation consists of vein, breccia and replacement style marcasite, galena and sphalerite.</li> <li>The NNW-trending, stratabound Wonawinta deposit extends for about 6km along the western flank of the Wonawinta Anticline.</li> </ul>
Drill hole Informatio n	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent</li> </ul>	<ul> <li>Drill hole data and results are too numerous to list. No new exploration results are included in this report.</li> <li>Summary drill hole information was prepared and first disclosed under the JORC Code 2004. It is not being reported in detail according to the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Person should clearly explain why this is the case.	
Data aggregatio n methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal</li> </ul>	No new exploration results are included in this report.
Polationsh	equivalent values should be clearly stated.	The recourse drilling is deminated by steep to us the l
Relationsh ip between mineralisa tion widths and intercept	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths</li> </ul>	<ul> <li>The resource drilling is dominated by steep to vertical holes drilled perpendicular or at a high angle to gently dipping mineralisation.</li> </ul>
lengths	are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate diagrams in relation to the deposit, including plans and cross sections, accompany previous public reports.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>It is not practical to list individual drill holes and intersections due to the high number of drill holes concerned. No new exploration results are included in this report.</li> </ul>
Other substantiv e exploratio n data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>No exploration data has been collected or is considered material to this report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>No further work is planned to be undertaken on the deposit in the near future.</li> </ul>

#### 28.3 SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> </ul>	<ul> <li>Resources were estimated from drill hole data in a MS Access format database linked to Geovia Surpac. Consistency checking between and within these files showed no significant inconsistencies.</li> <li>Historic data were supplied as CSV files exported from a</li> </ul>

Criteria	JORC Code explanation	Commentary
	• Data validation procedures used.	Micromine database. Supplied data is assumed validated and checked for data corruption, based on historic resource estimation reports that detail validation checks. Random checks of assay values in database against original assay certificates did not find any inconsistencies. All data was imported into an Access database linked to Surpac mining software and checked for errors in collar locations, down hole depths and intervals.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate</li> </ul>	<ul> <li>The competent person has visited the site on one occasion in March 2016, to examine the geological setting of the deposit.</li> </ul>
Geological interpretat ion	<ul> <li>why this is the case.</li> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological setting and mineralisation controls of the deposit have been confidently established from drill hole logging and geological mapping, including development of a robust three dimensional model of the major rock units.</li> <li>Geological and mineralisation interpretation was carried out on approximately 10 m spaced sections, oriented with the main drilling direction.</li> <li>Resources were estimated within a mineralised domain wireframe capturing the zone of continuous mineralisation grading more than approximately 10 g/t silver. Intercepts of lesser grade were sometimes included to aid continuity.</li> <li>The domains are flat lying and comprise a main, generally north-south trending zone, and two smaller subsidiary zones. The main zone was subdivided into six mineralised domains on the basis of the tenor of silver grades, data spacing and mineralisation orientation.</li> <li>Drill hole logging and sampling, surface mapping and grade control blast hole sampling were all used to help build the geological and mineralisation models to a high degree of confidence. The mineralised domain displayed very good continuity between sections.</li> <li>Lithological wire-frames interpreted from drill hole logging were used to assign densities to the estimates.</li> <li>Due to the confidence in understanding of mineralisation controls and the robustness of the geological model, investigation of alternative interpretations is unnecessary.</li> </ul>
Dimension s	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The main mineralised zone extends over approximately 6.5 km of strike with an average width of approximately 380 m.</li> <li>Thickness of the mineralised domains averages around 13 m with an average of around 36 m of barren overburden. Estimated resources extend to around 100 m depth.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the</li> </ul>	<ul> <li>Silver resources were estimated by Ordinary Kriging within unfolded model space that preserved the stratiform nature of mineralisation. Lead, calcium, iron and sulphur grades were estimated by Ordinary Kriging.</li> <li>Continuity of silver grades was characterised by variograms modelled for the main mineralised domains.</li> <li>Silver, lead and zinc Lead estimates for each domain included upper cuts of between 2.5 and 5% which generally approximate the 99th percentile of each dataset.</li> <li>Mineralised domains boundaries were generally extrapolated around 20 m across strike and up to 100 m along strike from drill holes.</li> <li>Some areas of mineralisation are broadly sampled with up to approximately 240 m between drill traverses. In these areas, the estimates are extrapolated to around 120 m from drilling.</li> <li>Geovia Surpac software was used for data compilation, domain wire-framing, coding of composite values, and resource estimation.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>The estimation techniques are appropriate for the mineralisation style.</li> <li>Available information suggests that the blast hole samples used for grade control interpretation are poorly representative and blast hole samples were not used in the estimate.</li> <li>With allowance for these deficiencies in the production data, the current estimates reconcile reasonably with production.</li> <li>Estimated resources include only silver and lead grades, with no assumptions about recovery of by-products.</li> <li>The resource model includes estimates of sulphur, iron and calcium grades within the mineralised domains.</li> <li>Resources were estimated into varying block sizes depending on drill spacing: 10 x 10 x 2.5 m where RC grade control exists; 40 x 40 x 10 where only wide-spaced exploration drill lines exist, and 20 x 20 x 5 in all other areas.</li> <li>Estimation of silver resources included un-folding of composite locations using the midpoint of the mineralised domain as a reference surface. Lead, sulphur, iron and calcium grades were estimated without-unfolding.</li> <li>The estimation included a four pass search strategy with a limitation on the maximum number of samples per drill hole. Major axis search distances ranged from 50 m to 75 m, with a semi-major ratio between 1 and 3.1 and a minor ratio between 3 and 4.</li> <li>The modelling did not include any specific assumptions about correlation between variables.</li> <li>Model validation included visual comparison of model estimates and composite grades, and trend (swath) plots, along with comparison with production estimates.</li> <li>Available information suggests that mined grade control ore outlines have included significant misclassification and comparison between production and model estimates are not definitive.</li> </ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages were estimated on a dry basis.
Cut-off parameter	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>A cut-off grade was applied according to actual mining and processing methods and their associated costs, recoveries, state royalties and silver price (AU\$30/oz in this case). A cut- off grade of 20 g/t was used for any material that could potentially be mined by open pit methods.</li> </ul>
Mining factors or assumptio ns	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>No mining factors have been applied to the in-situ grade estimates for mining dilution or loss as a result of the grade control or mining process. No metallurgical factors have been applied to the in situ grade estimates.</li> </ul>
Metallurgi cal factors or assumptio	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical</li> </ul>	Actual silver recoveries based on plant performance since July 2011.

Criteria	JORC Code explanation	Commentary
ns	methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environme ntal factors or assumptio ns	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>No specific issues beyond normal requirements for open pit mining in NSW.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Densities were applied to the estimates by rock type. Densities of 2.0, 2.0, 2.4 and 2.6 t/bcm were applied to oxide clay, sulphide clay, oxide limestone and sulphide limestone respectively.</li> <li>These values were derived from 153 immersion density measurements of oven dried drill core from six diamond holes.</li> </ul>
Classificati on	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Resource classification is based on data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity).</li> <li>Measured resources adopt the following guidelines. Blocks are dominantly estimated with a minimum of 12 composites, the nearest drill hole within 20m and the average distance to all informing samples approximately 30m or less. Krige efficiencies for measured mineral resources are dominantly higher than 0.5. The conditional bias slope recorded is greater than 0.8. Measured Mineral Resource are estimated in the first kriging run.</li> <li>Indicated resources are defined as those portions of the deposit estimated with a drill spacing of 40 m x 40 m that demonstrate a reasonable level of confidence in the geological continuity. Indicated blocks have been estimated with a minimum of 5 samples, and within 40m of a drill hole, and an average distance to all informing composites of 80 m. Krige efficiencies of blocks within the indicated category fall within the range of 0.25 to 0.4. Lower efficiency blocks may be included if a structural trend is present. Indicated resources are defined as those portions of the deposit estimated with a drill spacing of greater than 40 m x 40 m, and include areas drilled on a 250 m x 100 m sections or those portions of the deposit with a smaller number of intersections but demonstrating a reasonable level of</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>geological confidence.</li> <li>The resource classification accounts for all relevant factors.</li> <li>The resource classifications reflect the Competent Person's views of the deposit.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>The resource estimates have been reviewed SRK Consulting. Estimation methodology is considered appropriate, and block model grades are considered to appropriately reflect the mineralisation and drilling data.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Resource estimate for the Wonawinta deposit is considered robust and is representative of the global tonnes and grade contained within the area of the deposit tested by drilling. The interpretations of geology and mineralisation are well constrained and support high confidence in the estimate.</li> <li>Confidence in the relative accuracy of the estimates is reflected by the classification of estimates as Measured, Indicated and Inferred.</li> <li>With allowance for some deficiencies in the grade control production data, the current estimates reconcile reasonably with production.</li> </ul>

# 29 JORC CODE, 2012 EDITION – TABLE 1 MT BOPPY PROJECT

# 29.1 SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Samples were collected from a variety of methods: open hole percussion drilling, reverse circulation drilling and diamond drilling.</li> <li>Historic sampling techniques are assumed to be of industry standard.</li> <li>BOK sampling techniques included 1 m reverse circulation samples, from which 3 kg was pulverised to produce a 50 g charge for fire assay, diamond drill core from which half core was cut over varying interval length depending on logged geological units and was crushed and pulverised to produce a 50 g charge for fire assay, and open hole percussion samples collected over 2.5 m intervals using a 3 tier riffle splitter and pulverised to produce a 50g charge for fire assay or 200g charge for bottle roll leach</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Drilling was by reverse circulation, diamond core and open hole percussion methods.</li> <li>RC holes were drilled using a McCulloch 850 Mk 2 rig with a 2400 cfm/1000 psi rated compressor/booster set up, drilling 140 mm diameter holes.</li> <li>Diamond holes were drilled using a McCulloch 850 Mk 2 rig. Core size was HQ (63.5 mm) diameter.</li> <li>Core was oriented using the ACE tool.</li> <li>Open percussion holes were drilled by a Sandvik DP1100 rig with a 475 cfm/145 psi compressor and 1240 cfm/47 inch H2O dust collector.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>For RC drilling from 2011 onwards, recoveries were recorded by comparing the weight of each metre of sample to a theoretical sample weight, estimated using the hole diameter and the degree of weathering. The average recovery was calculated to be 80%, with no appreciable difference between weathering domains.</li> <li>No recovery information is available for RC drilling prior to 2011.</li> <li>Diamond drilling recoveries were measured and recorded, with average recoveries of 98% within mineralized zones. There was no correlation between recovery and gold grades.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill holes were geologically logged to various standards over the project history. Hardcopy logs are available.</li> <li>In general only geological logging was undertaken for pre-2011 drilling, with limited logging for recovery etc.</li> <li>For post-2011 diamond core drilling, core recovery and RQD data were recorded for the core run intervals, and core was routinely photographed.</li> <li>It is unlikely that the historical grade control drilling was logged geologically. Recent (post-</li> </ul>

		2013) grade control drilling was logged for stope fill.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the</li> </ul>	<ul> <li>Diamond core intervals for sampling were cut in half, following the orientation line to ensure a consistent side of the core was sent for assay.</li> <li>RC samples were split at the rig by cone splitter at 1 m intervals.</li> <li>Grade control samples were split at the rig by a 3-tier riffle splitter.</li> <li>Duplicate samples were collected at a rate of 1 in 20 and standards inserted at a rate of 1 in 40 for post- 2011 drilling.</li> <li>Field duplicate results for RC and diamond core samples showed &gt;95% of data within ±15%</li> <li>Samples were dried and pulverised to a nominal 90% passing 75 µm screen.</li> <li>Laboratory pulp repeats were taken on a regular basis.</li> <li>RC and grade control samples were analysed by 50</li> </ul>
data and laboratory tests	<ul> <li>assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>g fire assay with AAS finish.</li> <li>The laboratory QAQC protocols include duplicate and repeat analysis of pulp samples, screen tests (% passing 75 µm) as well as regular reporting of laboratory standards.</li> <li>QAQC results for the 2011 drilling (duplicates, blanks, CRM's, umpire assays) indicate no significant bias or lack of precision.</li> <li>Some grade control samples were analysed by 200 g bottle roll leach with AAS finish. A series of duplicates were analysed by both fire assay and bottle roll leach to determine an average leach recovery.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Two RC holes were twinned with diamond core holes.</li> <li>Analyses of twinned RC and diamond holes showed very close match between grade and length of intersected mineralisation.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collars were located by either electronic distance measurement (EDM) or differential GPS (DGPS) surveys to a high degree of accuracy.</li> <li>Down hole surveys were collected by camera or Reflex system at 30 m intervals.</li> <li>Topographic control is via a triangulated wireframe surface derived from an aerial photogrammetry survey as well as laser scanning and differential GPS surveys of the open pit.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drilling was undertaken on a nominal 10 m (along strike) by 20 m grid throughout the majority of the Resource as well as closely spaced grade control drilling (2.5 m x 3 m ).</li> <li>The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for estimation by Ordinary Kriging and the classifications of Measured, Indicated and Inferred Resources.</li> <li>RC and diamond core samples were composited over 2 m and grade control holes over 2.5 m to minimize sample splitting.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is</li> </ul>	<ul> <li>The orientation of sampling to the main structural controls, which are sub-vertical, is around 60° down from the horizontal for RC and diamond holes. This orientation is considered not to have introduced any bias to the sampling.</li> <li>All grade control holes are vertical, however the</li> </ul>

	considered to have introduced a sampling bias, this should be assessed and reported if material.	greater density of this sampling reduces the chances of introducing bias.
Sample security	• The measures taken to ensure sample security.	<ul> <li>Representatives of BOK supervised the collection and submission of samples up to the point of transfer to the freight company. Pre-2011 sample security protocols unknown.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>No external audit or review of the sampling techniques has been undertaken, but has been internally reviewed by senior geological staff.</li> </ul>

#### 29.2 SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>ML1681, ML311, MPL 240, GL 3255, GL 5836, GL 5848, and GL5898 and exploration licence EL 5842 are all held by Mt Boppy Resources Pty Ltd.</li> <li>The property, on which the reserves and resources are situated, is crown land.</li> <li>A Native Title Agreement is in place with the traditional owners.</li> <li>The Company notes that no land within the licence area may be classified as sensitive land. No further approvals other than those required under the Mining Act 1992 are required.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The deposit was first discovered in 1896 and mined by underground methods up to 1923.</li> <li>Various companies conducted exploration activities around Mt Boppy since the 1960s, with treatment of tailings and open pit mining up until 2015.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Mount Boppy deposit is located in the northern part of Devonian Canbelego-Mineral Hill Rift Zone, flanked by the Kopyje Shelf.</li> <li>The mineralisation occurs in brecciated and silicified sediments and quartz veining developed along a normal west-dipping fault which down-throws Baledmund Formation rocks on its western side against Girilambone Group rocks on it eastern side.</li> <li>The Main Lode strikes approximately north-south and dips at approximately 80° west.</li> <li>The best mineralisation in the wall rocks occurs within the Baledmund Formation rocks on the western side of the Main Lode where the lode has a shallower dip.</li> <li>Mineralisation is predominantly gold with minor zinc, copper and lead.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following</li> </ul>	<ul> <li>Drill hole data and results are too numerous to list individually. A summary of drill hole statistics follows:</li> </ul>
	<ul> <li>information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation</li> </ul>	Drill hole Number Metres Of holes Drilled Samples Sampled
	<ul> <li>above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>	Blastholes         19715         106018.35         39144         96621.04           Diamond Drilling         31         8775.36         6178         5179.36
	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why</li> </ul>	Percussion         70         1059.7         309         781           Reverse Circulation         177         10592         7239         8567.5

	this is the case.	Unrecorded 12 251.47 180 227
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No exploration results are being reported, this item is no relevant</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Exploration RC and DD drilling was oriented at angles of 40°-50° to the dip of mineralisation. Blast holes were vertical.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>No exploration results are being reported. Diagrams showing plan and section views are included in the main report.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>No exploration results are being reported, this item is no relevant</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>No exploration results are being reported, this item is no relevant</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Proposed re-commencement of mining operations.</li> </ul>

# 29.3 SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data was supplied to MA as an MS Access database used at the Mt Boppy Mine site.</li> <li>Data was validated for overlapping intervals, hole depths and non-matching hole ID's.</li> <li>Database was originally compiled by BOK from</li> </ul>

interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on</li> </ul>	<ul> <li>mineralisation and controlling structures in the pit, as well as gathering data from various digital and hardcopy sources.</li> <li>Geological and mineralisation interpretation was carried out on approximately 10 m spaced soctions, oriented parenerging to the strike of soctions.</li> </ul>
interpretation	<ul><li>geological interpretation of the mineral deposit.</li><li>Nature of the data used and of any assumptions made.</li></ul>	carried out on approximately 10 m spaced
	<ul> <li>Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>sections, oriented perpendicular to the strike of mineralisation.</li> <li>Mineralisation was modelled as a single domain above 1 g/t Au, which represents a clear natural break in grade statistics</li> <li>Intercepts of lesser grade were included where necessary to aid continuity</li> <li>The mineralised domain surrounded other 3D shapes modelled to represent historic underground workings filled with tailings material and timber supports.</li> <li>Historic workings outlines were derived from old mine plans and drill hole logging.</li> <li>Drill hole logging and sampling, surface mapping and grade control blast hole sampling were all used to help build the geological and mineralisation model to a high degree of confidence.</li> <li>Mineralisation displayed very good continuity between sections.</li> </ul>
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>The Mineral Resource has a strike length of 455 m and a maximum depth below surface of 215 m. The horizontal width of combined mineralised domains averages 60 m, and dip 85° to the west.</li> </ul>
modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> </ul>	<ul> <li>Statistical analyses was carried out on composite samples from mineralisation each domain to establish declustered means, top cuts and spatial variability (variography).</li> <li>Directional variography indicated differences in spatial anisotropy between the northern and southern parts of the deposit, divided by an interpreted cross-structure striking northwest.</li> <li>Gold grades were estimated by Ordinary Kriging (OK) interpolation methods into a Surpac block model with parent block dimensions of 10 m (along strike) by 5 m (across strike) by 5 m (vertical).</li> <li>The parent block size was optimised and is approximately half of the sample separation distance. The parent blocks were sub-celled to 1.25 m (along strike) by 0.625 m (vertical) for volume resolution.</li> <li>All estimates were made into parent blocks. Blocks were filled using two estimation passes, with an increasing search radius and decreasing minimum number of samples. Details are given in the report.</li> </ul>

Moisture	<ul> <li>used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul> <li>Domain boundaries were treated as hard.</li> <li>The estimates were validated by visual inspection of block grades and drill hole data, comparison to declustered means of composite data, and trend analysis (swath plots).</li> <li>Tonnages were estimated on a dry basis</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Cut-off grades applied according to potential mining and processing methods. A cut-off grade of 1 g/t was used for any material that could potentially be mined by open pit methods, based on previous production.</li> </ul>
Mining factors or assumptions <ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li></ul>		<ul> <li>Mining assumed to be by open pit methods.</li> </ul>
Metallurgical <ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li></ul>		<ul> <li>Metallurgical test work and previous processing operations indicate recoveries of around 78% for CIL.</li> </ul>
Environmen-tal factors or       • Assumptions made.         issumptions       • Assumptions made regarding possible waste and process residue disposal options. It is always assumptions         assumptions       • necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.		<ul> <li>No specific issues beyond normal requirements for open pit mining in NSW.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density values used for conversion of block model volumes to tonnages were derived from 1,306 core sample density measurements using water displacement methods.</li> <li>Density was assigned to the block model based on weathering domain; 2.4 t/m<sup>3</sup> for oxide, 2.68 t/m<sup>3</sup> for transitional and 2.77 t/m<sup>3</sup> for fresh material.</li> <li>Weathering domains were defined by drill hole logging for the oxide/transitional boundary and an RL of 175 m for the transitional/fresh boundary.</li> <li>Stope fill was assigned a density value 1.2 t/m<sup>3</sup> based on a density of 1.5 t/m<sup>3</sup> and 80% of the stopes being filled. This figure is considered somewhat conservative based on previous mining experience.</li> </ul>

Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>No correlation was observed between grade and density.</li> <li>Resources were classified according to the number of samples used, distance to samples and estimation confidence statistics:</li> <li>Measured: blocks estimated in pass 1 using average sample distance of &lt;10m and conditional bias slope &gt;0.9.</li> <li>Indicated: blocks estimated in pass 1 with conditional bias slope &gt;0.8, plus all stope fill material</li> <li>Inferred: remaining blocks estimated with at least 6 samples</li> <li>Unclassified: blocks estimated with less than 6 samples.</li> </ul>
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	The Resource estimate has been internally reviewed.
Discussion of relative accuracy/ confidence       • Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.         • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.         • These statements of relative accuracy and confidence of the estimate should be compared with production		<ul> <li>The Resource estimate for Mt Boppy is considered robust and is representative of the global tonnes and grade contained within the area of the deposit tested by drilling and surface mapping.</li> <li>The interpretations of geology and mineralisation are well constrained and support high confidence in the estimate.</li> </ul>

### 29.4 SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Section 4 – Estimation and Reporting of Ore Reserves extracted from (Desoe, 2020) for Manuka Resources Limited ("MKR")

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Ore Reserve Estimate is based on the February 2020 Resource Estimate prepared by Mining Associates Pty Ltd (MA) for in-pit resources at Mt Boppy. The Mineral Resource Estimate is reported at a 1.0g/t gold cutoff and is inclusive of the Ore Reserve. The resource estimate has been reported within an optimised pit shell (A\$2600/oz). The resource estimate includes material stockpiled on the ROM pad. The stockpile grade and volume/tonnage are supported by volumetric survey and assays of grab samples. These stockpiles are included in the Ore Reserves.</li> <li>MA prepared the resource estimate using drill hole data from the previous owner Black Oak Minerals Limited (BOK), current at the end of November 2015, plus six new reverse circulation (RC) holes drilled in the bottom of the pit in 2016 by MAAS Group. MAAS Group, a potential mining contractor for Mt Boppy, was assisting with the project assessment and development at that time. The BOK drill data includes blast hole data up to the end of mining in December 2015.</li> <li>MA estimated in-situ grades by Ordinary Kriging. The modelled resource grades do not incorporate dilution.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Stope fill material was assigned a grade of 3.6 g/t Au, as estimated by BOKbased on historical production records. MA considers that this is consistent with drill hole composite statistics that give an uncapped mean of 3.52 g/t Au.</li> <li>MA used the same block model parameters as BOK: parent blocks 10 m (y) by 5 m (x) by 5 m (z) with sub-blocking to 1.25 m by 0.625 m. MA's block model was extended down to 60 m RL in order to fully cover the interpreted extent of mineralisation at depth. The sub-blocking was applied to accurately model the resolution of mineralisation boundaries, in particular historic stope fill.</li> <li>MA assigned bulk densities for rock according to weathering zone, as listed below.         <ul> <li>Oxide: 1.4 t/m<sup>3</sup></li> <li>Transitional 2.68 t/m<sup>3</sup></li> <li>Fresh: 2.77 t/m<sup>3</sup></li> </ul> </li> <li>The density estimates were derived from 1,306 core sample density measurements using water displacement methods. A wireframe model was prepared for the top of transitional material based on drill hole logs. This was applied to the resource model to define oxide and transitional gold mineralisation. MA adopted an elevation of 175 mRL for the boundary between transitional and fresh material.</li> <li>MA assigned an average density of 1.2 t/m<sup>3</sup> to stope fill based on a density of 1.5 t/m3 and 80% of the stopes being filled.</li> <li>MA adjusted the resource sinclude Measured, Indicated and Inferred categories, classified in accordance with the JORC Code (2012) using a combination of average distance to informing samples, number of informing samples used and kriging statistics:-</li> <li>Measured: blocks estimated in pass 1 using average sample distance of &lt;10m and conditional bias slope &gt;0.9 and kriging variance &lt;0.5.</li> <li>Indicated: blocks estimated in pass 1 with conditional bias slope &gt;0.8, plus all stope fill material</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Chris Desoe, Competent Person for overall Ore Reserves sign-off, undertook a site visit at Mt Boppy Mine Site and Manuka Processing Plant Site on 20<sup>th</sup> February 2020, including the following:</li> <li>Open cut mining area</li> <li>External waste rock dump area</li> <li>ROM ore stockpile area</li> <li>Process plant facility and tailings dam area</li> <li>General infrastructure and access roads</li> <li>Please note that at the time of the site visit the Mt Boppy open cut was filled with water up to approximately 217mRL. This obscured the base of the existing pit and prevented visual verification of the state of those benches below 215mRL.</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre- Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically</li> </ul>	<ul> <li>The Mt Boppy Ore Reserve will be extracted by deepening an existing open cut, and processed at an existing facility that is currently being refurbished and upgraded. The overall project technical feasibility and economic viability is supported by a number of studies at Pre-Feasibility level and Feasibility level, that are consolidated in a Draft Project Implementation Plan prepared by MKR in February 2020. That report covers all of the key elements of the project, which address all material modifying factors for the mine plan and ore reserves estimate as described below.</li> <li>An ore reserve was previously reported for Mt Boppy by BOKin 2015.</li> </ul>

Criteria	JORC Code explanation	Commentary
	achievable and economically viable, and that material Modifying Factors have been considered.	
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>The ore reserve is defined by cut-off grades of 1.361 g/t gold for oxide ore and 1.471 g/t gold for transitional ore, fresh ore and stope tailings fill. These are head grade cutoffs that are applied to the diluted block model grades.</li> <li>These cutoffs are based on the following key assumptions:- <ul> <li>AUD\$2200/oz gold price</li> <li>Processing recoveries of 80% for oxide and 74% for transitional, fresh and stope fill.</li> <li>Ore costs of \$72.96/t, including \$35/t processing cost, as well as crushing, haulage, sustaining capex and admin.</li> <li>Gold selling cost of AUD\$3.71/g</li> </ul> </li> <li>These are marginal economic cutoff grades that will maximise the undiscounted cash value of the open cut. They are equal to the total ore cost per tonne divided by the net recovered value per gram of gold.</li> </ul>
Mining factors or assumptions	• The method and assumptions used as reported in the Pre- Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	Mining Method Mining of the Mt Boppy open cut pit will be by conventional drill and blast, load and haul methods. The development of the open cut will comprise gradual deepening and extension of the previous pit base limits. The final pit will be up to approximately 115m deep, 200m wide and 450m long at the original pit crest. Access to the pit is currently via a single lane ramp predominantly on the eastern side of the pit. The ramp will be extended to the southern end of the open cut. The last 150m segment of the ramp will run down the bottom of the western wall. Activities to be carried out on the Mt Boppy mine site include;
	<ul> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made</li> </ul>	<ul> <li>Dewatering of the pit, storage of water within temporary mine water storage dams and irrigation of areas of the mine, either for the purpose of dust suppression, rehabilitation or evapotranspiration.</li> <li>Reinstatement of the existing access ramp and the base of the pit, which may include clean-up of sediments/mud and releveling of the working areas to allow conventional mining activities to be undertaken.</li> <li>Grade control and probe drilling including:-         <ul> <li>"Stand-alone" RC drilling to cover the 50m vertical extent of the</li> </ul> </li> </ul>
	regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre- production drilling. • The major assumptions made and Mineral	<ul> <li>in-pit ore reserves,</li> <li>Sampling and sample assaying</li> <li>Adjustment of resource model as appropriate and mark out of ore zones</li> <li>Probe drilling to ensure the historical underground workings are located and the current conditions of the voids are clearly identified and assessed before mining operations commence in</li> </ul>
	Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery	<ul> <li>those particular areas</li> <li>Implementation of measures to address identified voids in accordance with the Mt Boppy Void Management Guidelines that are being developed. This may include filling of any large voids that pose a risk to safe mining operations in the vicinity of the void.</li> <li>Mining ore and waste rock from the open cut, by <ul> <li>Drill and blast on 5m benches,</li> </ul> </li> </ul>
	factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the	<ul> <li>Load and haul using 80t to 100t class hydraulic backhoe excavator and 40t class articulated dump trucks. The shot bench, approximately 6m high, will be dug in two 3m flitches or possibly three 2m flitches.</li> <li>Note that no vegetation and topsoil clearing is required for the mining area as the mining only involves deepening the existing open cut.</li> </ul>
	<ul> <li>outcome to their inclusion.</li> <li>The infrastructure requirements of the</li> </ul>	<ul> <li>Management of waste rock including:-</li> <li>Placement of waste rock on and expanding of the existing Waste Rock Emplacement (WRE) and subsequent rehabilitation.</li> <li>Internment of potentially acid forming (PAF) material within</li> </ul>

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation selected mining methods.	<ul> <li>designated areas of the WRE and subsequent capping and rehabilitation.</li> <li>Internment of PAF waste rock within the existing Tailings Storage Facility (TSF) 3 and subsequent completion of capping and final rehabilitation.</li> <li>Crushing and transportation of mined ore and existing stockpiled ore from the Mt Boppy Mine to the processing facility at Manuka Mine Site, approximately 80km south of Cobar.</li> <li>Maintenance of ancillary infrastructure including internal roads, offices and workshops, car parking and hardstand areas, and water management structures.</li> <li>Mining operations will be undertaken by contractor as MKR is not an experienced miner.</li> <li>Geotechnical</li> <li>Several geotechnical site visits and reviews have been undertaken for the Mt Boppy open cut by external consultant groups, including geotechnical review by Coffey for Polymetals Mining Services in 2006 and 2012 and more recent reviews for MKR by Pells Sullivan Meynink (PSM) from 2016 to present. Coffey provided slope designs for the east wall and west wall, for weathered and fresh rock. The recent open cut designs have involved deepening the pit in predominantly fresh rock and consequently PSM has focused on geotechnical design for fresh rock, and in particular addressing concerns associated with existing failures on the west wall.</li> <li>The original fresh rock of 80° faces and 7m wide berms every 20m vertically. This achieves the same inter ramp angle but the wider berm improves rock fall management.</li> <li>Additionally PSM recommends a 12m wide catch-berm around 225mRL on the west wall has already been blasted down to 215mRL the design incorporates a 12m wide berm at 215mRL.</li> <li>The failed material in the south-west wall currently forms a buttress that stabilises the failure. As much as possible, the failed material and blasted material immediately below the failure will be left in place to maintain the</li> </ul>
		<ul> <li>the west and south-west wall to address existing and potential failures. As the west wall has already been blasted down to 215mRL the design incorporates a 12m wide berm at 215mRL.</li> <li>The failed material in the south-west wall currently forms a buttress that stabilises the failure. As much as possible, the failed material and blasted</li> </ul>
		fill material. This material may have compacted over time, and exposures in the southern wall suggest it may have some strength, possibly allowing batters to be formed in this material. However, PSM has recommended that stope fill should be removed from batters and not form batters in fill. One exception is in the southern wall where the designed ramp crosses stope fill. This is likely to require ground support, which could simply be shotcrete as shown by the hatch in green in the figure below. To improve overall stability some basic piles (red) could be installed on the outer edge of the fill.

#### Criteria

JORC Code explanation

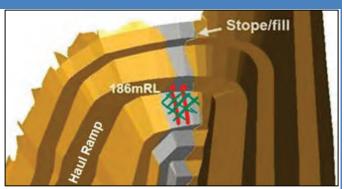


Figure 29-1 View looking south showing support for stope fill crossed by haul ramp at southern end of pit

The other exception is the bottom bench of the proposed pit design, which incorporates a 10m high batter formed in fill. This has an increased risk of slumping and erosional failure, but it should be possible to manage this operationally for the short duration of the final benches.

The design also includes a bench where removal of the stope fill back to the stope wall will leave a sub-vertical face on the east wall, around 6508070mN from 195mRL to 175mRL. This may result in some degradation of the rock mass and elevated stability risk.

- Wall stability in critical areas is being monitored using prisms and base station.
- A Ground Control Management Plan (GCMP) has been drafted and is being finalised for operations.

#### Mine Design

The open cut design was based on Whittle pit optimisation run by AMDAD. The optimisation applied economic and processing parameters provided by MKR, and pit wall slopes based on the geotechnical design parameters with allowance for the haul ramp. Due to the short mine life the cash-optimal pit shell was selected as the basis for design. The optimised shell was only used as a guide to target ore and to define the depth for the pit base. Notwithstanding the optimised shell, the design was also largely constrained within the existing open cut to avoid any pushbacks from the pit crest at the original ground level that would result in an onerous strip ratio.

The open cut design is shown in the following figure with the crest of the excavation shown by the blue line. AMDAD prepared the design using Surpac mine planning software. It incorporates the alternative geotechnical design proposed by PSM and has the following features:

•	Top of excavation:	226mRL
---	--------------------	--------

٠	Base (goodbye cu	ıt): 165mR	165mRL	
•	Overall Strip Ratio	o: 2.4 tw	aste : 1.0 t ore	
٠	Haul Ramp			
	<ul> <li>Width</li> </ul>	Width (Single Lane): 10m		
	<ul> <li>Effecti</li> </ul>	Effective Width: 8m		
	<ul> <li>Average</li> </ul>	Average Gradient: 1 in 8.		
٠	Approximate Hau	mate Haul Distances:-		
	<ul> <li>Pit Exi</li> </ul>	Pit Exit to ROM: 300m		

0	THE LARE TO NOTA.	50011
0	Pit Exit to Waste Dump:	300m

• Pit Exit PAF to TSF: 700m

#### Criteria

JORC Code explanation

Commentary

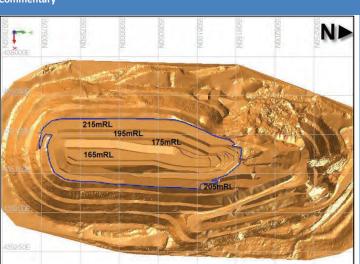


Figure 29-2 Plan view of open cut excavation design within blue "crest" line.

The proposed pit excavation will be constricted, with an overall width of only approximately 90m, and including areas of very narrow mining width:-

- After digging down the previously blasted bench on the western wall from 225mRL to 215mRL, excavation will then involve cutting down an 8m wide bench over a 10m height to form the batter from 215mRL down to 205mRL. This narrow bench results from leaving a 12m wide berm at 215mRL.
- At the 270mRL top of the final goodbye cut, working width is only 15m, excluding the ramp

#### Dilution and Mining Loss

The estimated ore reserve includes adjustment for dilution of 10% at 0.4g/t gold, and mining recovery of 95%. These simple factors are considered reasonable for selective mining using standard drill and blast and 90t excavator, and the geometry of the deposit, characterised by:-

- Relatively continuous ore zones
- Sub-vertical dip
- 2.5m wide to 20m wide

#### Mine Sequencing and Schedule

- MKR prepared a mining schedule in Excel targeting a feed rate to the processing plant of approximately 38kt per month.
- Prior to commencement of mining a two to three week Establishment phase will complete preparatory works including clean ups, initial grade control and probe drilling.
- MKR prepared a mining schedule in Excel targeting a feed rate to the processing plant of approximately 38kt per month. Waste will be mined at a rate required to achieve ore production in line with the schedule.
- The open cut will be developed in 5m high benches, commencing at 225mRL bench at the northern end. Two to three benches may be active at any time, accessed from the eastern ramp. This will provide flexibility in work scheduling and help to balance resources.
- The total operational schedule will see works conducted over an approximate 36 week or 9 month LOM, with sustainable ore delivery from approximately week 9 onwards.

#### Inferred Resources

The ore reserve does not include Inferred Resources. However, approximately 4,000t of Inferred Resources would be extracted within the proposed open cut

Criteria	JORC Code explanation	Commentary
		design. This additional 1.7% of potential mill feed may represent a small upside to the reserves.
		As-mined Surface
		A Dec 2016 MAAS Group File Note expresses uncertainty regarding the extent of previous mining in the northern end of the open cut, which appears to have been partly filled. Accordingly, AMDAD excluded resource in the block model in this area as follows:-
		<ul> <li>Blocks north of 650155N have been removed.</li> <li>Blocks where Polymetals blast hole drilling was undertaken have been excluded as it is unlikely they would have been drilled and not mined; north of 6508130N and above 210RL- left side of the figure below.</li> <li>Very high grade blocks (&gt; 8g/t) modelled adjacent to stope north of 6508130N between 200 and 210RL have been excluded - right side of the figure below.</li> </ul>
		figure below.
		Figure 29-3 Mt Boppy Resource Exclusions at Northern End of Open Cut
		AMDAD also notes that the November 2015 end of month survey surface indicates a solid bench from 225mRL to 215mRL on the western wall. However, it is evident from inspection that this bench has been blasted. The estimated ore reserve and associated mining quantities rely on this as-mined surface, other than the northern end exclusions noted above.
		Mine Water Management
		<ul> <li>Historical records indicate that significant inflows of groundwater into the Mt Boppy open cut pit are unlikely. Pit dewatering requirements should be limited to rain events within the open pit crest and an expected groundwater inflow of approximately 12 l/s.</li> <li>Pit dewatering is planned to be managed using a leap frog system of in-pit sumps and high volume/high head diesel pump, with water being pumped to either the purpose-built evaporation and sediment ponds or used as dust suppression in and around the open cut operational areas.</li> <li>Water management structures such as cut-off drains, bunds and culverts will be established to help prevent surface run-off from entering the open cut. They will be implemented in line with the site Surface Water Management Plan.</li> </ul>
		Mine Infrastructure
		Mine infrastructure and services, shown in the figure below, will include the following:-
		<ul> <li>Run of mine (ROM) Stockpile Area, including         <ul> <li>Removal of timber and trash from historical mining,</li> <li>Ore crushing: Crushing will be carried out by a contractor. The ROM ore is crushed to a top size of 16mm to 20mm at a rate of approximately 38,000 tonnes per month.</li> <li>The crushed ore is stockpiled then trucked to a fine ore stockpile at the Manuka processing plant site 100km by road south of Cobar. The approximately 150km haulage route is predominantly sealed road, north-west from Mt Boppy along</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Gilgunnia-Canbelego Road ,Rosevale Road, west along the Barrier Highway to Cobar, south along Kidman Way, then west along the Manuka access road.</li> <li>Mine Facilities Area, including         <ul> <li>dome covered containerised site workshop facility, equipment and tooling, welders, compressors, equipment stands</li> <li>lubricant storage and dispensing</li> </ul> </li> </ul>
		Ware Room     Ning       Ware Room
		Figure 29-4 Mt Boppy Infrastructure
		<ul> <li>tyre change</li> <li>fuel storage and dispensing</li> <li>equipment wash-down and parking areas</li> <li>Demountable-type mine office and facilities, potable water, building maintenance and cleaning, crib supplies, site radios supply and repair, mobile phones, printers, computers, servers and other IT related items.</li> </ul>
		<ul> <li>Sewerage or waste removal and disposal.</li> <li>Camp and associated facilities are located at the Canbelago town across Gilgunnia-Canbelego Road from the Mt Boppy Mine Site entrance. This includes 40 self-equipped single rooms, well-equipped kitchen, catering for approximately up to 35 people, well-equipped laundry and storage rooms.</li> <li>Power supply from diesel powered generators, including 150kVA diesel generator supplying the Mine offices, camp and kitchen, and separate generator to be mobilised by the mining contractor for the Mine Facilities Area.</li> </ul>

- Lighting for night time operations
- Water management structures, pumps and pipes as described under Mine Water Management above.
- Note that explosives storage will not be required. Instead, explosives and accessories will be brought to site as required for each shot by the blasting contractor.

Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery</li> </ul>	<ul> <li>Processing Plant</li> <li>The Mount Boppy ore will be treated at the processing facility at Manuka Mine site 80km south of Cobar. This was originally a silver plant designed to process circa 800 ktpa of a blend of soft clays and fractured limestone followed by harder limestone basement rock. The original flowsheet was modified by a previous owner Cobar Consolidated Resources when more competent ores were mined earlier than expected. The plant was commissioned in 2012, modified in 2013 with addition of a small 400kW ball mill, and upgraded by BOKin 2014/15, with the addition of a larger 1800kW ball mill. BOKvariously treated silver ore, a combination of silver ore and Mt Boppy gold ore and then Mt Boppy gold ore only from September to November 2015. The plant is currently being refurbished by MKR. It is considered to be in a good operating condition and has been pressure tested to check integrity of fittings and pumps.</li> <li>The plant will have capacity to treat 450ktpa at a grind size of p80, 53 microns and an average gold feed grade of 3.1 to 3.3 g/t. A flowsheet is</li> </ul>

#### Criteria

#### • ··

**JORC Code explanation** 

### Commentary

shown below.

factors applied.

considered representative of the orebody as a whole. For minerals that are defined by a

based on the

to meet the specifications?

Any assumptions or allowances made for

deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are

specification, has the ore reserve estimation been

appropriate mineralogy

The metallurgical process is considered to be well-tested technology.

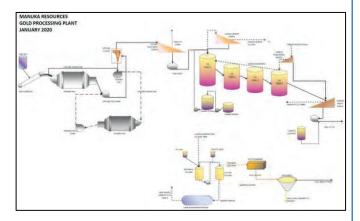


Figure 29-5 Manuka Gold Processing Plant

#### Metallurgical Testwork

The following relevant metallurgical test work has been completed, providing support for plant design and metallurgical recovery estimates:-

- ALS Ammtec conducted test work in 2012 on samples designated Fresh, Hanging Wall Fresh, Transition, Oxide and Sands (Fill). All samples except for the sands were obtained from drill core and the drill core intercepts. Sample grades ranged from 3.4g/t Au to 4.4g/t Au.
- Peak Goldmines conducted laboratory leaching test work during a toll treatment campaign on Mt Boppy ore in August 2005.
- Manuka Resources are currently conducting test work at AMMLon samples of stockpiled ore from previous operations at Mt Boppy. Sample feed grades are 3.4 g/t Au to 4.3 g/t Au. Diagnostic leach tests conducted in both the ALS and AMMLtestwork indicate that 80% to 90% of the residue gold is locked as very fine particles within sulphide minerals.

Three plant trials on fresh ore also assist with formulating operational and gold recovery data:-

- Mt Boppy 2005 operations six month campaign on fresh ores recorded a recovery of 74.2% from a head grade over 4 g/t Au, and a grind size of 75 microns.
- Toll treatment of 14,750 tonnes of Mt Boppy fresh ore at Peak Gold Mines in September 2005 achieved gold recovery of 74.6% at a feed grade of 9.6 g/t Au and grind size of 74 microns.
- At the Manuka plant in October 2015 BOKrecorded a gold recovery of 76% from a 3.3 g/t Au feed grade and an intended grind size of 53 microns.

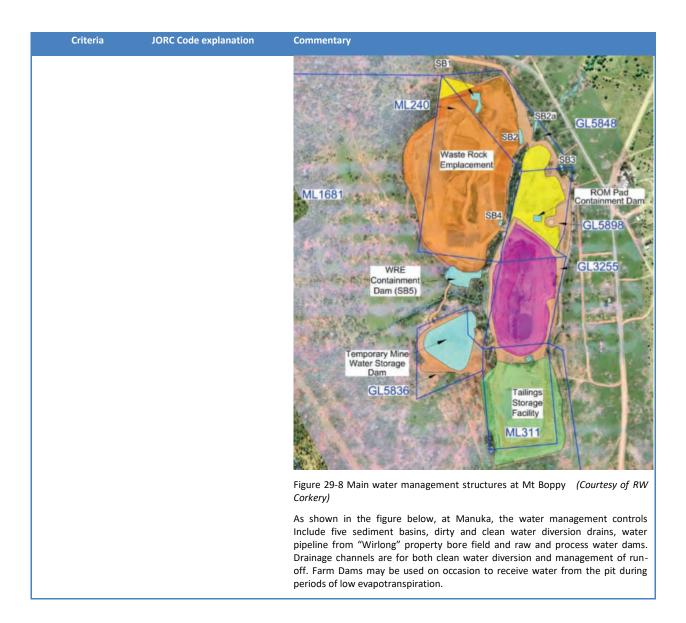
These data show:-

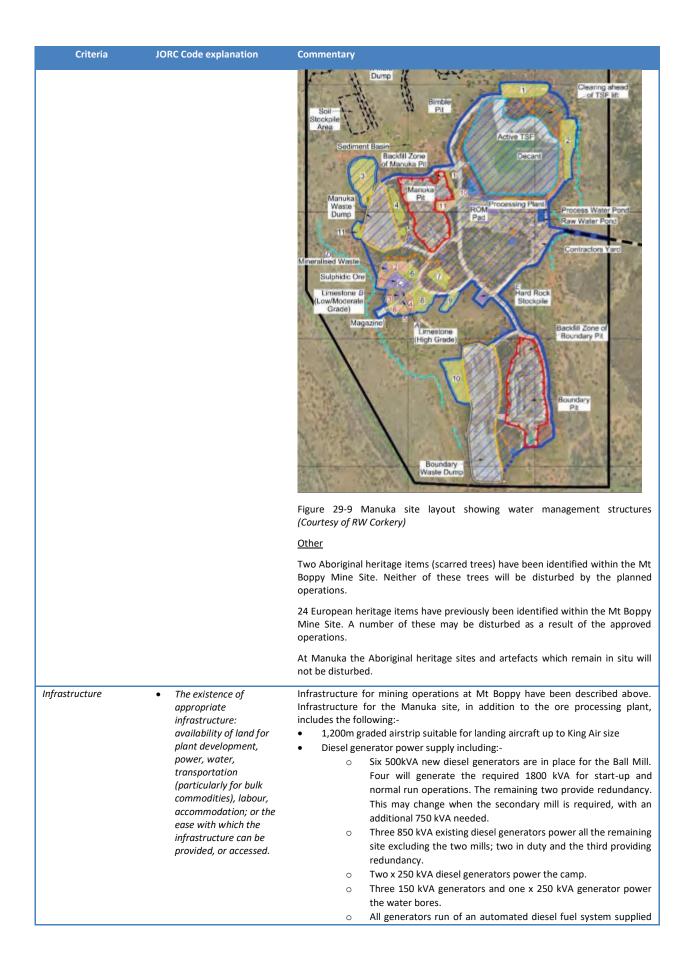
- The ore is grind sensitive and contains a possibly variable, preg-robbing component. Preg-robbing is generally caused by a carbonaceous component in the ore. The use of activated carbon in all process leach tanks negates the effect of preg-robbing. The design is to have a CIL circuit.
- There is a refractory gold component where gold is "locked" in sulphides. This component limits the gold recovery to moderate values.
- Decreasing the grind size from 75 microns to 53 microns gives a 3% to 4% increase in gold recovery. Further size reduction gives additional small improvements, but the grind size is practically limited. The design is to have a product of 80% passing 53 microns.
- Increasing the cyanide concentration above an initial 500 ppm, appears to give improved gold recovery. However, due to the requirement to detoxify the cyanide in the tailings stream, this variable will best be assessed, in

Criteria	JORC Code explanation	Commentary
		<ul> <li>combination with the detox chemical requirements, during plant operations.</li> <li>CIL gold recoveries range from 71% to 82% for head grades in the range of 3.5 g/t Au to 4.5 g/t Au. From both the plant trial and test work information a gold recovery of 74% has been selected for the reserve design criteria.</li> <li>Continual improvement measures will be adopted during the processing of the Mt Boppy ore, to optimise plant recoveries</li> </ul>
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Environmental status Mt Boppy Mine is located on seven mining tenements held by Mt Boppy Resources Pty Ltd; Gold Lease (GL) 5848; GL 5898; GL 3255; GL 5836; Mining Purpose Lease (MPL) 240; Mining Lease (ML) 311; and ML1681. The Manuka processing facility is located within Mining Lease (ML) 1659. Mine Operation Plans (MOPs) have been reviewed and updated for both Mt Boppy and Manuka sites based on the proposed site activities. The MOPs provide detailed explanations of the actions being undertaken to satisfy operational environmental requirements, such as monitoring and rehabilitation. Administration costs include allowances for these activities. The updated MOPs address several non-compliance issues listed for attention in December 2019 by the NSW Department of Planning Industry and Environment (Resources Regulator). The MOPs were submitted to the Resources Regulator in
		January 2020 and are pending approval. In conjunction with the MOPs the existing Manuka Environmental Management System will continue to be actioned, reviewed and updated across both sites to manage environmental site issues in accordance with relevant legislation, regulations, standards and guidelines and MKR policy and corporate guidelines. Key components of the environmental management are outlined below.
		Waste Rock Management
		Waste characterisation testing confirms that a high proportion of the Mt Boppy waste rock is potentially acid forming (PAF). The geological block model used to predict the volume of waste rock indicates that 66% will be "moderate risk" PAF, from 0.3% to 1.0% sulphur, and 22% will be "increased risk" PAF, above 1.0% sulphur.
		Increased risk PAF will be placed within the existing Tailings Storage Facility (TSF) 3 structure, as shown below. TSF3 is located adjacent to the southern end of the open cut. MKR estimates that the available volume in TSF3 will be more than sufficient to accommodate the volume of increased risk PAF to be mined. Any surplus volume would be used to store moderate risk PAF. It will then be capped using NAF material previously placed by BOKaround the rim of TSF 3.
		Figure 29-6 Storage of Increased Risk PAF in TSF 3 at Mt Boppy
		The remaining waste rock will be placed in the existing Waste Rock Emplacement (WRE) located north-west of the open cut, adjacent to the ramp exit point (see figure below). The moderate risk PAF material, will be encapsulated within

Criteria	JORC Code explanation	Commentary
		designated areas of the WRE as follows:-
		• A base layer of NAF material will be placed to a minimum of 3m to provide for drainage beneath the WRE.
		• PAF material will then be placed on top of the NAF material and lime added at a rate of 30t/ha.
		• The limed PAF material will be capped by a clay layer with minimum depth of 900mm providing an impermeable layer with maximum permeability of 1 x 10 <sup>-9</sup> m/s.
		• The clay capping will be covered using selected NAF material to a depth of approximately 2m with an overlaying soil cover to provide a vegetated store and release layer.
		• The encapsulated PAF material will not be placed beneath the batters of the WRE to ensure long-term stability / integrity of the clay capping and store and release cover and limit rainfall percolation into the PAF material.
		<ul> <li>This design will minimise percolation into the PAF material and provides a three-fold management system, i.e. store and release cover, clay capping and lime for waste rock neutralisation if acid is generated.</li> </ul>
		Moderate Risk PAF to Waste Rock Emplacement (WRE) To TSF3 Open Cut No
		Figure 29-7 Plan showing locations of TSF3 (increased risk PAF) and WRE (moderate risk PAF) at Mt Boppy
		<ul> <li>The general design of the WRE is as follows.         <ul> <li>Total Area: ~22.2ha (including previous WRE area).</li> <li>Maximum height: 20m, comprising 2 x 10m lifts. First lift is already in place.</li> <li>Berm width: 5m.</li> <li>Batter slopes: 37° (upper), 18° (lower), to mimic a concave outer slope profile consistent with surrounding natural landforms</li> </ul> </li> </ul>
		MKR estimates that the approved second lift of the WRE will comfortably accommodate the remaining NAF and moderate PAF waste rock.
		Existing NAF areas may be reshaped or relocated to ensure sufficient encapsulation materials are available. Associated costs are included in the rehabilitation capital cost allowance.
		Waste rock will be characterised during mining, as outlined in the Mine Waste Management Plan (Appendix F of the Mine Operational Environmental Management Plan OEMP), by a combination of field and laboratory-based tests.
		At Manuka, activities associated with existing waste rock emplacements will revolve around the reuse of materials for construction or rehabilitation. The majority of the waste rock to be removed (~99%) is pale and ferruginous clay or oxidised limestone with a very low acid generating potential. Some clay, limestone and topsoil at Manuka may be backhauled to Mt Boppy to supplement capping materials available there.

Criteria	JORC Code explanation	Commentary
		Tailings Storage
		The tailings generated from ore processing will be contained at the existing Manuka TSF and the phreatic surface kept low by the collection and drainage of leachate via the central decant. The floor and initial embankments of the TSF have been constructed with permeability of less than $1 \times 10^{-9}$ m/s to prevent seepage from the TSF.
		AECOM has prepared final designs for the TSF lift to approximately 264m AHD. This should provide sufficient storage capacity for the tailings from the remaining Mt Boppy ore as well as the silver stockpiles at Manuka for approximately 18 months.
		Erosion has been noted on the southeast corner of the TSF. This area will be reprofiled and stabilised in the first quarter of 2020 and a surveillance and monitoring program will be implemented to ensure early identification and rectification of erosion on the TSF batters. These additional tailings management measures will be incorporated into an updated Waste Management Plan for the Mine.
		Water Management
		At Mt Boppy the water management controls Include four sediment basins (SB1 to SB4) at the WRE and ROM Stockpile Area, two containment basins (WRE dam and ROM dam), two temporary mine water storage dams, as shown in the figure below. Other structures include a creek diversion, drainage channels and Council operated farm dams. Drainage channels are for both clean water diversion and management of runoff. Sediment basins are used to manage water runoff. These structures will be retained for long-term water from the open cut. At completion of mining they will be dewatered back to the open cut, profiled to a free-draining landform and revegetated. The farm dams are used by Council for collection of water and may be used on occasion to manage water from the mine during periods of low evapotranspiration. These dams will be retained for ongoing Council use. The creek diversion is a permanent structure and will not be altered during or post mining.





Criteria JO	RC Code explanation	Commentary
		<ul> <li>directly from the site tanks and automatically topped up when a low trigger point is reached.</li> <li>Diesel fuel storage and delivery for generators and mobile equipment from 70,000 litre self-bunded Transtanks.</li> <li>Administration buildings, first aid room, meeting/conference room, toilet, change house and storage rooms</li> <li>Communications         <ul> <li>NBN sky muster system for both sites with 3G back up from the nearby Telstra tower. Boosters throughout the site provide reliable network and phone connections.</li> <li>An emergency response satellite phone can be utilised if there is a failure of the communication systems due to unforeseen circumstances.</li> <li>Regular internal communications at both sites are run through a UHF radio system</li> </ul> </li> <li>Water supply from four bores on the neighbouring property "Wirlong", 3.5km south of the plant. Potable water is supplied from a refurbished reverse osmosis plant.</li> <li>Warehouse and workshop, with MEX stores management system.</li> <li>Gold room</li> <li>Fenced reagent storage area</li> <li>Crushed ore stockpile area,</li> <li>Camp, including         <ul> <li>G4 self-equipped single rooms and 6 oversize disabled rooms</li> <li>Well-equipped kitchens catering for approximately up to 35 people</li> <li>fully equipped recreational room with a gym, pool table, dart board, and big screen TV</li> <li>Well-equipped laundry and storage rooms.</li> </ul> </li> </ul>
Costs •	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	<ul> <li><u>Project Capital costs</u></li> <li>The Mt Boppy mining capital cost estimate is \$688,200 including the following items and sources:-</li> <li>Mining Contractor Pre production costs – from Neill Earthmoving proposal</li> <li>Contractor contingency - MKR Estimate</li> <li>Geotechnical – piling x 150m and shotcrete - PSM estimate plus 50% contingency</li> <li>Geotechnical – Cable bolting for access - MKR Estimate to complement \$35k/month owner's mining costs</li> <li>Survey Equipment - MKR Estimate</li> <li>MKR advises that its financial model also includes the Mt Boppy rehabilitation cost estimate of \$1,195,340 in the Capital Cost.</li> <li>The Manuka site capital cost to establish the processing plant is estimated as \$4.4 million including the following items and sources. Please note though that these are considered sunk costs and excluded from the financial modelling to confirm the economic viability of the Ore Reserve:-</li> <li>First fill reagents – MKR Estimate</li> <li>Gekko Elution Circuit and installation - Gekko price + \$100,000 contingency</li> <li>TSF lift - 2m - MKR site Management</li> <li>Critical Spares Allowance - MKR site Management</li> <li>Remaining Refurbishment - MKR site Management</li> <li>Mill liners - Weir - past pricing</li> <li>Equipment - MKR site Management</li> <li>Operator Training - MKR site Management</li> <li>Operator Training - MKR site Management</li> <li>Oxygen injection to CIL - MKR Met</li> </ul>

Criteria	JORC Code explanation	Commentary
		Cyanide Dosing system - MKR site Management
		Sustaining Capital is estimated as \$30,000/month.
		Project operating costs
		Project operating costs per tonne of ore processed, estimated by MKR, are summarised below:-
		\$19.87/t Mining
		\$10.00/t Crushing
		\$34.72/t Processing
		\$19.63/t Ore haulage
		\$6.55/t Administration
		\$90.77 Total Operating Cost
		<ul> <li>MKR estimated the Contract Mining costs using pricing from the Neill Earthmoving proposal to calculate variable Load and Haul and Drill and Blast unit costs. The estimated variable cost equates to \$5.98/tonne of material mined. The mining cost also includes \$1.07/t for mining overheads including administration and camp costs.</li> <li>MKR estimated Crushing and Haulage costs as follows:-         <ul> <li>Crushing cost based on average cost to date of \$7.21/t, increased to \$10.00/t to cater for finer product to optimise grinding.</li> <li>Haulage cost of \$19.63/t of ore based on current contract.</li> </ul> </li> <li>MKR estimated Manuka site Processing costs of \$34.72/t ore as follows:-         <ul> <li>Power costs based on BOKcosts with adjustments for escalation, expected improved fuel efficiency, additional genset rental cost.</li> <li>Maintenance Materials allowance of 10% of \$10M of installed equipment per annum</li> <li>Reagents and Consumables cost from detailed consumption estimates and supply prices</li> </ul> </li> <li>MKR estimated the Administration costs of \$6.55/t of ore from a combination of historical Manuka site operational costs and MKR experience.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity</li> </ul>	Gold RevenueThe pit optimisation used a gold price of AUD\$2,000/oz. With the recent uplift in the gold price, sensitivity runs were undertaken at higher gold prices. MKR nominated a price of AUD\$2,200/oz to determine ore selection for the Ore Reserves, and has adopted a pricing of US\$1.550.50/oz and exchange rate of 1USD=AUD0.68, equating to AUD\$1,280/oz, for its financial modelling.As at 24th February 2020, the spot gold price was approximately AUD\$2,489/oz. (ABC refinery web page)Realisation costsGold products are expected to be refined at ABC refinery in Sydney. Contracts are being reviewed and executed currently.
	metal or commoalty price(s), for the principal metals, minerals and co- products.	For the optimisation, gold payability was set at 100%; however a sales cost of \$200,000 was included. Terms at ABC include a payability of 99.5%, which equates to \$125,000 for a \$50m revenue. The NSW Government charges a gold royalty of 4% on gold revenue net of processing and associated Administrations costs. Third party royalty agreements equate to a further AUD\$33/oz produced.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and</li> </ul>	<ul> <li>The following comments are made in relation to market assessment:-</li> <li>Unlike metal concentrates. iron ore and coal, gold is a homogeneous product and the market is relatively transparent.</li> <li>The current spot price for gold is significantly higher than the price adopted</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	for the project financial modelling, providing some conservatism. However the current AUD gold price is likely to be volatile due to uncertainties around the current global and Australian economic impact from COVID-19 (novel coronavirus).
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Project cost/financial model</li> <li>MKR prepared a financial model for the project in Excel using operating and capital cost estimates described in the "Costs" section above, and based on a gold price of AUD\$2,280/oz. The model uses a mining schedule prepared by MKR, with tonnes and grade reported within the open cut design prepared by AMDAD.</li> <li>The ore selection applied for the schedule was not identical to the methodology applied by AMDAD for the Ore Reserves. In order to confirm the economic viability of the Ore Reserves the scheduled overall tonnes and grade were adjusted in the financial model to match those of the Ore Reserve.</li> <li>With this adjustment MKR's financial model shows a pre-tax discounted cashflow (DCF) at 8% discount rate, of approximately AUD\$19 million. The MKR model indicates that the DCF is still positive at a gold price of AUD\$1,400/oz.</li> <li>Please note the following:- <ul> <li>The DCF excludes the capital cost for the Manuka plant refurbishment, which is considered a "sunk" cost. It also excludes the cost for the TSF lift, which would cater for 1 million m<sup>3</sup> of tailings. This work is being completed predominantly for potential continued operation of the Manuka plant, with mill feed from Manuka mine, once the Mt Boppy ore is exhausted.</li> <li>The DCF does not include debt-repayment.</li> <li>A processing recovery of 74% is applied to all ore. This includes the 2.5% component of ore that is ovide. This results in minor conservatism, compared to the 80.0% oxide recovery applied for the Ore Reserves</li> </ul> </li> </ul>
Social	• The status of agreements with key stakeholders and matters leading to social Licence to operate.	Canbelego Township Four non-company residents live in three privately owned residences in the Canbelego Township. Those in two of the residences have signed negotiated agreements. Those of the third residence have given verbal agreement to the planned mining operations but have not signed an agreement as a matter of general intent to never sign agreements. Consultation will continue with these residents to keep them informed of the ongoing operations. No specific agreements, objections or other expectations regarding post mining land use or rehabilitation objectives were raised by the community during

Criteria	JORC Code explanation	Commentary
		consultation, and hence no alterations to the final land use are proposed. The resident caretaker under Mt Boppy Resources Pty Ltd has kept residents informed of developments and assisted the small community when they have required outside help.
		Mt Boppy Site - Traditional Owners
		Extensive consultation has occurred between Mt Boppy site and the Traditional Owners for the area, namely, the Ngiyampaa people. An agreement has been signed with the Ngiyampaa people which includes predevelopment surveys for any proposed areas of disturbance. All site investigations have been completed in consultation with the Ngiyampaa people.
		As no specific agreements, objections or expectations regarding the post mining land use or rehabilitation objectives were identified during consultation, no alterations to the final land use are proposed.
		Manuka Site
		The former occupier of "Manuka", Mr Andrew Moseley, who holds an option to buy back the "Manuka" property, has been consulted regarding planned rehabilitation of the Mine Site. He has made no objections to the proposed final landform with his expectation being that the final pits are safe and stable landforms, and the waste rock dumps, TSF, other stockpiles and hardstands are stabilised and revegetated to allow for pastoral activities.
		MKR has also consulted the owner and occupier of the only residence located between the Mine and the Kidman Way, namely "Yarranvale". The proposed haulage of ore from Mt Boppy to Manuka Site was discussed. The owner of "Yarranvale", Mr B.J. Harland, indicated no issue with the proposed transportation of ore. He did request that measures be implemented to minimise the generation of dust on Shire Road 14 and agreed that a polymer based binding agent be used initially.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre- Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve</li> </ul>	MKR has confirmed that there are no other material issues or risks that could impact on the project and on the estimation of the ore reserves.

Criteria	JORC Code explanation	Commentary
	is contingent.	
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	Reserve Classification         Approximately 10% of the Ore Reserves are derived from the Measured Resource. However, aspects of some of the modifying factors, as described below, are not at the highest level of confidence and this component of the Ore Reserve from the Measured Resource is consequently classified as Probable. Aspects of uncertainty and risk in the modifying factors are described below:-         • Geotechnical uncertainty associated with failures in the western pit wall and impacts of stope fill,         • Uncertainty regarding the current as-mined surface, such as the western wall shot bench to 125mRL and the pit base, and         • Some of the components of the cost estimates and modifying factors are not at the highest level of confidence. They would be considered as PFS level rather than FS level, and commensurate with Probable Reserves rather than Proved Reserves.         General Project Risks         General risks to the overall project and ore reserves are summarised below:-         • Significant changes to the US\$ gold price and/or exchange rate         • Funding difficulties         • Delays for the process plant start up         • Delays for the Mt Boppy mining 'start up' phase         • Mining impacts from geotechnical factors and old workings         • Grade and tonnage recovery variances from the estimated resources.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>Ore Reserve appropriately reflects the Competent Person's view of the deposit.</li> <li>No audits or reviews of the latest resource and reserve estimates have been undertaken.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic</li> </ul>	The resource model from which the Ore Reserve is estimated does not include measures of relative accuracy other than what is implied by the resource classification. No simulations or probabilistic modelling have been undertaken on the Ore Reserves that would provide a meaningful measure of relative accuracy. The Modifying Factors are considered to be supported by studies to at least PFS level. Therefore, it is considered appropriate that the Measured and Indicated Resource classifications translate to Probable Ore Reserves.

Criteria	JORC Code explanation	Commentary
	<ul> <li>evaluation.</li> <li>Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	

#### **30 CERTIFICATES OF COMPETENT PERSONS**

## **COMPETENT PERSON'S CONSENT FORM**

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report Name: Technical Report on the Mt Boppy gold and Wonawinta silver-lead-zinc projects, NSW, Australia ("the Report") dated 28<sup>th</sup> April 2020.

I, Ian A Taylor confirm that I am the Competent Person for the Report and:

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code, 2012 Edition, having a minimum of five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.

I am a Member or Fellow of The Australasian Institute of Mining and Metallurgy or the Australian Institute of Geoscientists or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by the ASX from time to time.

I have reviewed the Report to which this Consent Statement applies.

I am a consultant working for Mining Associates Pty Ltd, and have been engaged by Manuka Resources Limited to prepare the documentation for the Manuka and Mt Boppy Property on which the Report is based, for the period ended 28<sup>th</sup> April 2020.

I have disclosed to the reporting company the full nature of the relationship between myself and the Company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources.

#### CONSENT

I consent to the release of the Report and this Consent Statement by the Directors of Manuka Resources Limited.

Signature of Competent Person:

Ian A Taylor BSc Hons (Geology) MAusIMM (CP) MAIG (Kenmore, Qld)

Mining Associates Pty Ltd ABN 29 106 771 671 Level 6, 445 Upper Edward St Spring Hill QLD 4004 AUSTRALIA T 61 7 3831 9154 F 61 7 3831 6754 W www.miningassociates.com.au Signature of Witness:

Kylie Prendergast BSc Hons (Geology), PhD, MAICD, MAIG (2284) Date: 28 April 2020

# **COMPETENT PERSON'S CONSENT FORM**

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report Name: Technical Report on the Mt Boppy gold and Wonawinta silver-lead-zinc projects, NSW, Australia ("the Report") dated 28<sup>th</sup> April 2020.

I, James H Lally confirm that I am the Competent Person for the Report and:

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code, 2012 Edition, having a minimum of five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.

I am a Member or Fellow of The Australasian Institute of Mining and Metallurgy or the Australian Institute of Geoscientists or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by the ASX from time to time.

I have reviewed the Report to which this Consent Statement applies.

I am a consultant working for Mining Associates Pty Ltd, and have been engaged by Manuka Resources Limited to prepare the documentation for the Manuka and Mt Boppy Property on which the Report is based, for the period ended 28<sup>th</sup> April 2020.

I have disclosed to the reporting company the full nature of the relationship between myself and the Company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Reporting.

#### CONSENT

I consent to the release of the Report and this Consent Statement by the Directors of Manuka Resources Limited.

Signature of Competent Person:

James H Lally PhD, MSc, BSc (Hons) MAIG, MSEG (Sherwood, Qld)

Mining Associates Pty Ltd ABN 29 106 771 671 Level 6, 445 Upper Edward St Spring Hill QLD 4004 AUSTRALIA T 61 7 3831 9154 F 61 7 3831 6754

W www.miningassociates.com.au

Signature of Witness:

Kylie Prendergast BSc Hons (Geology), PhD, MAICD, MAIG (2284), FSEG Date: 28 April 2020

# **COMPETENT PERSON'S CONSENT FORM**

Consent letter for the Ore Reserves Estimate provided by (Desoe, 2020):

#### **Competent Person's Consent Form**

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

#### Report name

Technical Report on the Mt Boppy Gold and Wonawinta Silver-Lead-Zinc Projects, NSW, Australia

(Insert name or heading of Report to be released) ('Report')

Manuka Resources Limited

(Insert name of company releasing the Report)

Mt Boppy Gold and Wonawinta Silver-Lead-Zinc Projects, NSW, Australia

(Insert name of the deposit to which the Report refers)

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

28<sup>th</sup> April 2020

(Date of Report)

#### Statement

I/<del>₩e</del>,

Christopher Desoe

(Insert full name(s))

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the Australian Institute of Geoscientists or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

Australian Mine Design and Development Pty Ltd

(Insert company name)

Or I/We am a consultant working for

#### (Insert company name)

and have been engaged by

Manuka Resources Limited

(Insert company name)

to prepare the documentation for

Mt Boppy Gold Deposit, New South Wales, Australia

(Insert deposit name)

on which the Report is based, for the period ended

29 February 2020

(Insert date of Resource/Reserve statement)

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and/or Mt Boppy Ore Reserves (select as appropriate).

# Page 3

#### Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Manuka Resources Limited (Insert reporting company name)

Signature of Competent Person:

5 May 2020

Date:

Fellow AusIMM (CP)

Professional Membership: (insert organisation name) 104206

Membership Number:

Signature of Witness:

Elizabeth Desoe, West End QLD

Print Witness Name and Residence: (eg town/suburb)

Additional deposits covered by the Report for which the Competent Person signing this form is accepting responsibility:

Not applicable

Additional Reports related to the deposi accepting responsibility:	t for which the Competent Person signing this form is
Not applicable	
Signature of Competent Person:	Date:
ignature of Competent Person.	Date.
Professional Membership:	Membership Number:
insert organisation name)	
Signature of Witness:	Print Witness Name and Residence:
	(eg town/suburb)



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# **Project Memo**

Client:	Manuka Resources	Date:	28 April 2020
Attention:	Haydn Lynch	From:	Danny Kentwell
Project No:	MNK001 and RCI001	Revision No:	1
Project Name:	Mt Bobby and Manuka Mineral Resource Review		
Subject:	Review details		

# 1 Introduction

SRK Consulting (Australasia) Pty Ltd (SRK) was commissioned by Manuka Resources to complete a review of the Mining Associates Pty Ltd (MA) Mineral Resource estimates for Mt Boppy project and the Manuka (Wonawinta) silver project. SRK received a draft report, Surpac block model and wireframes and an MS Access drilling database from MA for both projects. The Manuka (Wonawinta) Mineral Resource review was completed in October 2016 and is considered current – SRK has been informed that no new resource interpretation or field work has been completed since that date. The Mt Bobby Mineral resource review was completed in March 2019. SRK also corresponded with Ian Taylor of MA, who is the author of the draft report for both resources. MA completed an Independent Technical Report for the Wonawinta project, which was prepared for inclusion in a Prospectus for the Initial Public Offering for Manuka Resources Limited, the parent company of both projects.

# 2 Mt Boppy Mineral Resource review

SRK has reviewed the draft Mineral Resource report prepared by MA and a historical overview document by McQueen (2005), sourced from the worldwide web. A draft of this review memorandum was provided to MA for comment, and MA's responses have been incorporated.

# 2.1 Historical assay data

Drilling and assaying from 1995 to 2016 provide the basis of the Mineral Resource estimate. Only six holes from 2016 have any records of quality assurance/quality control (QAQC) associated with them. Of these six holes, two holes twinned older holes and showed reasonable comparisons. MA states that the Black Oak and Polymetals 2015 and 2012 reports discuss QAQC and that MA has no concerns, but that no data are currently available. SRK has not sighted either of these reports.

# 2.2 Historical mining

#### 2.2.1 Stopes

Underground mining was completed around 1923 (McQueen, 2005). Stope level plans used to guide the MA stope model are reported to have been taken from Mines Department records from 1915. McQueen (2005) reports that at closure in 1923, the mine had reached No. 9 level, some 900 ft (274 m) below surface. The stope model constructed by MA extends to approximately 180 m below surface to what is possibly No. 6 level (Figure 2-1). There is therefore a strong possibility that stoping extends well below the current model. This is, however, not relevant to the current open pit Mineral Resource model as its reporting and classification are constrained to a nominal pit shell that terminates approximately 140 m below surface.

SRK recommends that additional historical records be sought if any consideration is made of the currently unclassified block model material below the nominal pit shell, as there is a strong possibility that additional stoping has occurred that is not captured in the current MA stope model.

Historical reports (McQueen, 2005) show head grades for underground mining of 12 ppm Au, with tailings averaging 3 ppm Au.

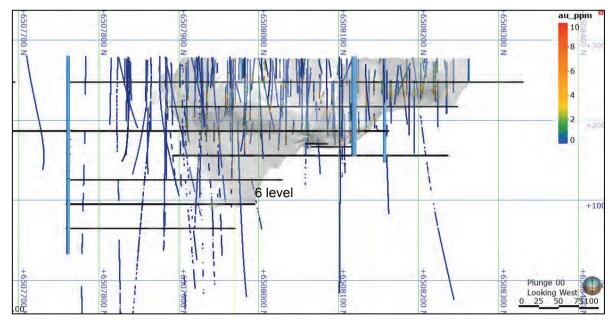


Figure 2-1: Long section looking west showing historical underground shafts and levels, current stope model (grey) and drilling

## 2.2.2 Open pit

Large-scale open pit operations began in 2002, although there are records of a series of holes drilled in 1995. Several companies worked the open pit and tailings intermittently until 2015. The current pit surface topography was taken from a combination of aerial photogrammetry and a ground pick-up in November 2015.

#### 2.3 Geological interpretation

The geological interpretation of the remnant mineralisation surrounding the historical stopes was based on all drilling and used an approximate grade threshold of 1 ppm Au, which corresponds in most areas to a relatively sharp drop in grade downhole. Geological logging does not appear to be useful in determining this or any other geological boundary. The choice of the 1 ppm Au threshold together with a sharp grade drop appears to be a reasonable criterion for definition of the mineralised domain.

The drilling coverage is not systematic or regular, but spacing is approximately10 m along strike and 15–20 m down dip.

In SRK's experience of modelling historical workings, there is sometimes a 'skin' of higher-grade material between the mined-out stope and the general peripheral remnant mineralised material, which needs to be modelled as a separate geological and estimation domain. From examination of the assays in the available drill holes, this does not generally appear to be the case for the Mt Boppy deposit, and it is therefore appropriate to model the remnant material as a single estimation domain.

SRK is not aware of the historical mining methodology and material selection procedures; however, it would appear that in the vast majority of areas the very high grade (~12 ppm Au average) material was successfully recovered, leaving little of the very high grade material behind. This may be due to geological, visual and/or geotechnical attributes of the very high grade ore mined historically.

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#### 2.4 Compositing and top-cutting

Compositing was done on 2 m intervals for the non-blast hole drilling from typically 1 m samples. Blast holes were composited to their standard 2.5 m length. This compositing is considered appropriate.

Top-cutting was done after compositing, which SRK considers standard practice. All composites were capped at 35 ppm Au. SRK's examination of the composite statistics concurs with MA's choice and SRK agrees that this is an appropriate capping threshold.

#### 2.5 Block model and estimation

The block model used 10 m × 5 m × 5 m blocks for estimation, with 1.25 m × 0.625 m × 0.625 m subblocks used for volume calculation.

#### 2.5.1 Remaining mineralisation

SRK considers the above block sizes appropriate for use in the Mineral Resource estimation. The estimation methodology used was ordinary kriging. The method and parameters used by MA are appropriate for the deposit.

#### 2.5.2 Stope fill – void volume

One of the major uncertainties of the model is the extent of unfilled voids in the historical stopes. MA has assumed a fill factor of 80% (20% void) and used this to factor the density. The fill density assumed is 1.5 and this is factored to 1.2 for reporting. No actual void volumes were modelled.

SRK examined the drilling, assaying and logging within the stope volume model for reverse circulation (RC) and diamond (DD) drill holes. The proportion (by length) of unassayed intervals within the modelled stope volume is 58%. Unassayed intervals are variable logged as shown in Table 2-1. These logging codes are not unique to the unassayed intervals and also occur for assayed intervals – as such, they cannot be assumed to be exclusively either fill or void.

In the worst-case scenario in which all unassayed intervals are assumed to be void, the fill proportion is approximately 40% as opposed to the 80% assumed in the model.

Logging code	Proportion by length (%)	Proportion of each code unassayed (%)	Proportion of each code assayed (%)
CAV (Cavity)	17	44	56
Fill	2	16	84
Loss	7	100	0
Stope	56	62	38
Wood	2	100	0
Blank (no log)	9	79	21
All other geology	8	0	100
Total	100	58	42

 Table 2-1:
 Logged proportions of intervals within stope model

#### 2.5.3 Stope fill – grade

The stope grade has been set as a constant 3.6 ppm Au based on the average grade of the assayed material in the stope model below the mined-out pit. All drilling in the current database was carried out after historical stope mining and all assays within the stopes are assumed to be from fill material. The variability of these assays is high, ranging from 0.01 to 60 ppm Au. Historical mining in the open pit (McQueen, 2005) together with stockpiles sampled during 2016 by MA suggest that the mined fill material in the upper regions was around 2.5–3.0 ppm Au.

#### 2.6 Reasonable prospects of eventual economic extraction

#### 2.6.1 Pit shell

The pit shell used to constrain the Mineral Resource has been optimised at a gold price of A\$2,600/troy oz, which is close to the current gold spot price. The pit has pulled down to bottom out at the base of the 'keel' of the syncline that contains the mineralisation. Regardless of any sensitivity to pit depth on gold price, this is a logical depth at which to constrain the Mineral Resource geologically and geometrically because this is where the concentration of tonnage occurs.

#### 2.6.2 Processing

Oxide material is assumed to have an 80% recovery and fresh material a 74% recovery using a carbonin-leach (CIL) process. These are reasonable assumptions.

#### 2.6.3 Cut-offs

The geological modelling cut-off is approximately 1 ppm Au, as is the Mineral Resource reporting cutoff, which effectively includes all material in the modelled mineralised domain and within the filled historical stopes.

If the conventional open pit cut-off calculation of **cut-off = processing cost / (recovery × price)** is applied, using a processing cost of A\$80 (including trucking to Manuka; from the MA report), a recovery of 75% and a price of A\$2,600/troy oz (A\$83.60/g) gives a cut-off of approximately 1.3 ppm Au. The use of 1 ppm Au as a Mineral Resource cut-off is therefore appropriate.

#### 2.7 Classification

Given the absence of QAQC on the majority of the assays, SRK is hesitant to allocate any Measured material in the Mineral Resource estimate. However, SRK does not consider MA's classification of a small portion as Measured to be a material issue. In SRK's opinion, Indicated and Inferred categorisations within the in situ remnant material are appropriate as modelled.

The classification of the stope fill and Indicated material is more problematic, due to both the void uncertainty and the allocation of a single average grade. While the fill has been sampled in the drilling, it is unclear if the recovered sample is representative.

#### 2.8 Conclusions – Mt Boppy

SRK's main concern with the Mt Boppy Mineral Resource model is in regard to the uncertainty around the stope voids/stope density. The potential impact is a loss of tonnage in the order of 55 kt at a grade of 3.6 g/t Au, or 14% of the Mineral Resource tonnage and 16% of Mineral Resource gold ounces (excluding stockpiles).

An associated concern is that the average 3.6 ppm Au grade assigned to the stope fill may be too high in comparison with the anecdotal historical 3 ppm Au and the current stockpile average of 2.5 ppm Au.

SRK considers that the estimate for the for the in situ remnant mineralisation is sound despite the absence of historical QAQC.

#### 3 Manuka (Wonawinta) Mineral Resource Review

The Manuka deposit (Wonawinta project) is a shallow, complex silver-lead-zinc deposit that has been described as being of Mississippi Valley type (MVT) origin.

SRK initially reviewed the following Mineral Resource related documents:

- Cobar Consolidated Resources, Wonawinta Feasibility Study 1.0 Executive Summary, 2010
- Optiro, Wonawinta Grade Control Review, April 2013
- MPR Geological Consultants, Wonawinta Silver-Lead Deposit Resource Estimation, February 2014
- Aurifex, Site Visit Observations and Comment Process, February 2014
- Black Oak Minerals, ASX release, 20 February 2015

- Black Oak Minerals, ASX release, 30 July 2015
- Black Oak Minerals, ASX release, 4 August 2015.

SRK then held discussions with Ian Taylor and James Lally of MA, and examined the interim drilling database, geological models and proposed estimation approach, providing verbal and email feedback on several aspects, mainly around domaining for estimation.

Upon MA's completion of a draft resource model and draft report, SRK examined these, noting some discrepancies in the sulphur estimate which were subsequently addressed by MA. Comments on the final model and report as of 22 September 2016 are detailed in this memorandum.

#### 3.1 Structural model

There are many local minor folds and undulations, as well as the influence of underlying moderately to steeply dipping structural controls over the entire deposit that affect rock type, oxidisation and grade geometry. Where drill spacing is sufficiently close, these variations in the geometry are captured locally in the geological model surfaces. However, the grade control drilling shows there are places within the model where the exploration drilling fails to capture these significant local deformations (Figure 3-1).

Some structural modelling has been completed but has not yet been explicitly incorporated into the Mineral Resource model.

In SRK's opinion, the local detail of the model could be significantly enhanced by completing and incorporating a structural model that uses the existing exploration, grade control, regional mapping and geophysical data. Regional data, by definition, will not be accurate at the local scale, but it may be possible to corelate regional structures and trends that have been identified with local features seen in the grade control data and in the grade shell contours, and then extrapolated/interpolated onto the controlling wireframes used for resource modelling and estimation.

In SRK's opinion, the addition of a structural model may not make much difference to the overall grades and tonnages above the reporting cut-off grade, but may make a significant difference to the local (tens of metres scale) geometry and relative proportions and volumes of the different material types (oxide clay, fresh clay, oxide limestone/dolostone, and fresh limestone/dolostone). This could be important for a detailed production schedule, plant throughput and metallurgical performance.

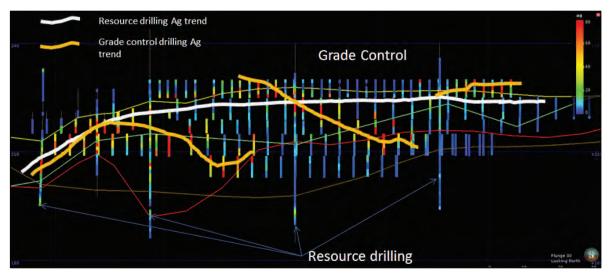


Figure 3-1: Section 6 431 710N showing exploration and grade control trends

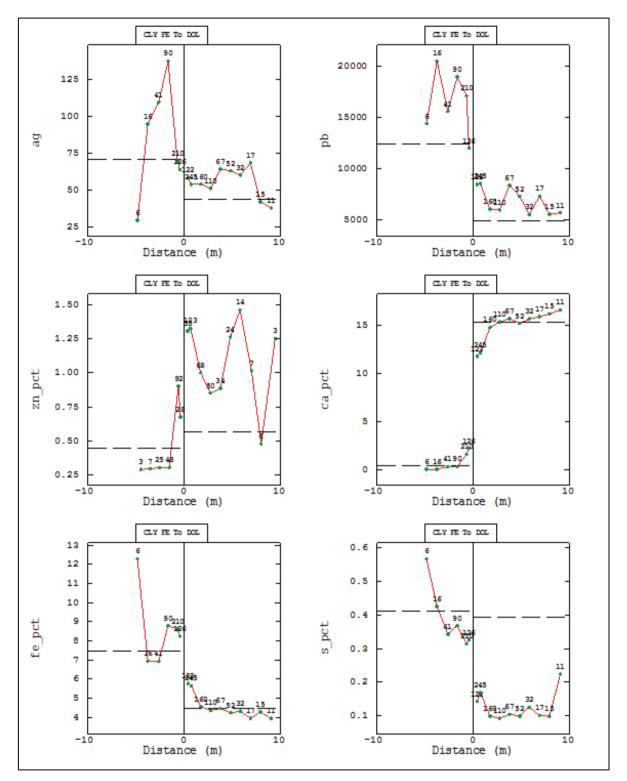
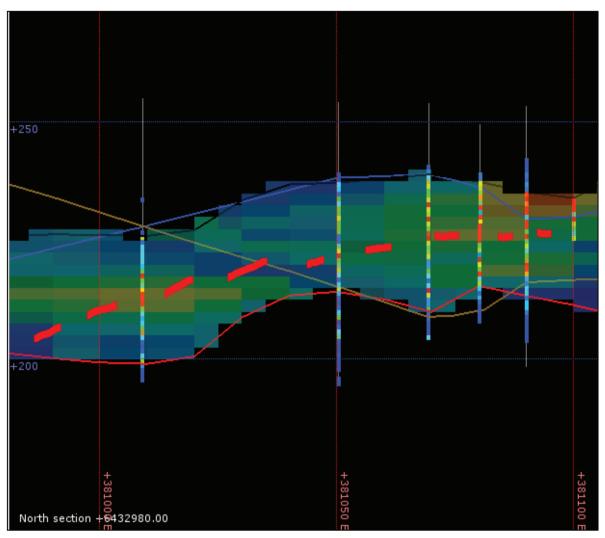


Figure 3-2: SRK contact analysis plots

#### 3.2 Western oxide/ fresh surface

The use of a hard boundary between oxide and fresh material is appropriate for most of the deposit where the mineralisation is sub-horizontal. However, there are parts of the western edge of the deposit where the silver and lead mineralisation dives down a contact/structure (presumably the original fluid source conduit) and this crosses the oxide fresh boundary in some places.

In SRK's opinion, the continuity of silver and lead mineralisation should follow this contact/structure across the oxide fresh boundary and not be split by it. The clearest example of this is on section 6 432 980N (Figure 3-3).



SRK notes that this geometry only occurs in limited areas of the deposit. SRK is of the opinion that re-modelling this aspect correctly is a refinement rather than a significant addition to the model.

Figure 3-3: Section 6 432 980N showing silver trend and oxide boundary

### 3.3 Block size

SRK notes that several different estimation block sizes are used in the resource model according to the relative drill coverage. While this is acceptable practice and is designed to reduce bias, it can also be misleading in terms of global grade and tonnage curves, due to the mixing of support sizes. Larger blocks will give grade and tonnage estimates at cut-offs above zero that are less selective and will generally report lower grades and higher tonnages compared to smaller blocks.

Ideally, the areas with different block sizes should be reported separately, with the block size used clearly stated, and any grade and tonnage curves should be kept separate and not use mixed support sizes. Grade and tonnage curves for the different areas of the deposit are shown in the draft report, and the block size used for each of these should be specified.

Actual selective mining unit block sizes may be significantly smaller than the block sizes used for estimation, leading to significantly different grades and tonnages above economic cut-offs compared to large block sizes.

The significance of this for the Manuka deposit has not been quantified in the Mineral Resource report, and SRK recommends theoretical change of support tests be undertaken to quantify the potential impact.

#### 3.4 Grade control reconciliation with new resource model

This has not yet been completed but is planned to be done by MA.

#### 3.5 Conclusions – Manuka (Wonawinta)

The overall process, geological modelling and estimation methodology are appropriate for resource estimation of this type of deposit. MA has classified and reported only silver and lead for the entire deposit, as these two elements have almost full coverage in all holes. Zinc, calcium, sulphur and iron have also been estimated where there is sufficient coverage; however, these have not been publicly reported or classified under the guidelines of the JORC Code, and consequently have a much lower level of confidence associated with them.

The Mineral Resource classification under the guidelines of the JORC Code is appropriate, with the understanding that while the Measured and Indicated parts of the resource model are suitable for scoping and pre-feasibility studies, additional assaying/modelling/drilling may be required in some areas for detailed studies, particularly if zinc is to be considered a significant component of the economics.

In terms of material types, the resource model has defined the four main mineralised material types: oxide clays, oxide limestone/dolostone, fresh clays, and fresh limestone/dolostone.

SRK recommends that future production plans incorporate the metallurgical and processing characteristics of these material categories. SRK has not reviewed the metallurgy and processing requirements or history in detail, and notes that additional material types may also need specific definition and testing.

Yours faithfully SRK Consulting (Australasia) Pty Ltd

Signed by:

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Signed by:

they

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