Independent Technical Review and Mineral Resource Valuation Mungana Goldmines Ltd

Report Prepared for

Grant Thornton Corporate Finance Pty Ltd

Report Prepared by

SRK Consulting (Australasia) Pty Ltd

MUN005

May 2015

Independent Technical Review and Mineral Resource Valuation of Mungana Goldmines Ltd

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Executive Summary

SRK Consulting Australasia Pty Ltd (SRK) was commissioned by Grant Thornton Corporate Finance Pty Ltd (Grant Thornton) to prepare an updated Independent Technical Report and Mineral Resource Valuation (ITR) for the mineral assets of the ASX listed company, Mungana Goldmines Ltd (MUX). SRK previously provided an ITR for MUX in May 2014, which include a valuation of MUX's mining and exploration licences dated December 2013 (SRK, 2014). This ITR report provides an update of the 2014 valuation report work and also provides a high level review of assets, where appropriate, as a result of material changes to those assets. The Report has been undertaken under the guidelines of the VALMIN Code (2005 Edition), which incorporates the JORC Code (2012 edition).

SRK's full report, body and appendices can be found on the MUX website;

http://www.munganagoldmines.com.au/

Summary of Principal Objectives

MUX has received an unsolicited takeover bid from Auctus Chillagoe Pty Ltd (Auctus), (ASX, 29 April 2015). This Mineral Resource Valuation will be included in Grant Thornton's Independent Expert's Report to accompany MUX's Target Statement.

Outline of Work Programme

The following aspects were considered in the writing of this report:

- A high level review of its Mineral Resource estimates and the methodologies applied, which was mainly undertaken by SRK in December 2013 (SRK, 2014); this did not include any re-estimation of Mineral Resources;
- A review of exploration technical reports and supporting documentation prepared by MUX, mainly undertaken by SRK in December 2013 (SRK, 2014);
- A high level review of Mineral resource estimates or exploration project areas, where appropriate, as a result of material changes to those estimates or assets;
- Compilation of Comparable Transactions by the SRK project team; and
- Valuation Component and Report Preparation.

SRK notes that the VALMIN Code 2005 in Clause 65 recommends that a site inspection be completed should it be 'likely to reveal information or data that is material to the report'. SRK previously reviewed the assets to be valued in December 2013 (SRK, 2014) as part of a Heads of Agreement (HoA) between MUX and Kagara. SRK is satisfied with the amount of additional information provided by MUX for this valuation.

Introduction and Background

MUX is developing the following exploration projects:

North Queensland

- Mungana/ Red Dome (Pre-Development Projects);
- Mungana Base Metals Lode (Advanced Exploration Area);
- King Vol and Griffiths Hill/Red Dome (Pre-Development Projects);
- Shannon-Zillmanton (Advanced Exploration Area);
- Red Dome Leach Pad (Advanced Exploration Area);

- Penzance, Montevideo, Victoria, Queenslander and Morrisons (Advanced Exploration Areas);
- Chillagoe (Exploration Areas); and
- Charters Towers (Exploration Areas).

Tenements

MUX holds title to a 100% interest in the tenements listed in Table ES-1, as supplied by MUX. SRK has not independently reviewed the status of these tenements.

Table ES-1: Mungana Goldmines Ltd's tenement holding

Tenement	Project	Status	Sub-blocks
EPM 12902	Arkaroola	Granted	5
EPM 15458	Red Dome	Granted	75
EPM 15459	Red Dome Extended	Granted	8
EPM 18530	Red Dome West	Granted	2
EPM 19064	Fluorspar	Granted	8
EPM 7672	Walsh River	Granted	20
EPM14104	Walsh River Extended	Granted	5
EPM 14108	Walsh River Extended 2	Granted	20
EPM 19196	Dargalong	Granted	35
ML 4798	Beaverbrook	Granted	-
MLA 20658	King Vol	Application	-
ML 4910	Shannons	Granted	-
ML 4911	Zillmanton	Granted	-
ML 4921	Shannon West	Granted	-
ML 4928	Griffiths 1	Granted	-
ML 4977	Griffiths 2	Granted	-
ML 5176	Red Dome	Granted	-
ML 5319	North West Mungana	Granted	-
ML 20640	Mungana West	Granted	-
EPM 25132	Liontown 1	Granted	100
EPM 25133	Liontown 2	Granted	87
EPM 25134	Liontown 4	Granted	33
EPM 25135	Liontown 3	Granted	79
EPM 25148	Liontown 5	Granted	34
EPM 25270	Liontown 6	Granted	3
EPM 25271	Liontown 7	Granted	46
EPM 25437	Liontown 8	Granted	100
EPM 25680	Liontown 9	Granted	29

High Level Review of Resource Estimates and Exploration Areas

SRK previously reviewed the reported Resources of Kagara Zinc Limited (KZL) and MUX in December 2013. For this valuation, SRK has relied upon the previous review work (SRK, 2014) where no material change in the Resources has been reported.

SRK notes that of the Resource assets valued (Pre-Development and Advanced Exploration Areas), only King Vol has materially changed.

SRK has provided a high level review of the following assets and areas as for the valuation of these assets:

- King Vol Pre-Development Project
- Chillagoe Exploration Area
- Charters Towers Exploration Area.

King Vol

SRK has reviewed the updated Resource report for King Vol as provided by MUX and notes there have been material changes to the style and nature of the Resource model, which have broadly resulted in increased tonnages with decreasing grade.

The material changes to the model and datasets are described below. The full Resource report is provided in Appendix B.

- Mineral Resources were modelled using data derived from Mungana Goldmines Ltd's (Mungana) drill hole database. This database is essentially the same as used for the previous update of the King Vol resource completed by Kagara Limited in March 2012; however, around 700 sample pulps have been re-assayed due to quality assurance/ quality control (QA/QC) batch failures (relating to standards performance); and
- Previous resource estimates for the King Vol Skarn Deposit had employed an ordinary kriging (OK) methodology into 33 individually interpreted wireframes with the vast majority of the resource tonnes contained within one interpreted zone. For the purposes of the current resource estimate, many of these smaller wireframes have been consolidated according to stratigraphical position and a total of three separate wireframes have been used as input.

SRK has reviewed the updated King Vol Resource Report at a high level. Whilst SRK agrees with the broad principles and methods involved in the Resource update, SRK has not independently reviewed the Resource model in detail nor verified the updated tonnes and grades.

SRK has compared the net value change between these two Resources based on the derived comparable transaction value, dollar per commodity tonne basis. The updated 2014 Resource has potentially resulted in an increased attributable value of 9.0% or approximately (A$0.9M). Whilst SRK considers this to be a material increase in the value of the Resource, SRK does not consider it to be material to the final valuation of MUX as the net potential increase represents ~1.5% of the final valuation total (see valuation summary below).

Chillagoe Exploration Area Review

The exploration ground held by MUX in the Chillagoe area has been reviewed by SRK for the purposes of this valuation. The previous review conducted in December 2013 has been used as the basis of this updated review; however, there have been a number of material changes to the exploration areas since SRK's previous review. The Exploration Licences held by MUX as of May 2015 in general cover the same region as the previous review, are subject to relinquishment and/or renewal, resulting in a smaller, more focused area.

The Chillagoe district in Northern Queensland has a mining history dating back to the 1880s, but the district's potential to become a significant gold camp was not recognised until the discovery of the Red Dome deposit in the late 1970s and the Mungana deposit in the in the 1980s. The Palmerville Fault marks the western margin of the Hodgkinson Province and separates the Precambrian Dargalong Metamorphics in the west from the Palaeozoic-aged rocks in the east. There is a sliver of Ordovician Mulgrave Formation along the eastern side of the Palmerville Fault, and an eastwardly younging sequence including the Chillagoe and Hodgkinson formations.

The Chillagoe Formation hosts the majority of mineralisation in this region and it outcrops along a 5–10 km-wide north-west striking belt which extends for 150 km from Mt Garnet in the south-east to north-west of Chillagoe where the belt, and bounding Palmerville Fault, changes orientation and extends for a further 120 km.

Multiple phases of intrusive activity in the Chillagoe district tend to be associated with gold, copper, zinc, lead, silver, tin, molybdenum, tungsten and bismuth mineralisation. The Mungana and Red Dome gold deposits are associated with a particular suite of intrusions of Late Carboniferous age. The surrounding host rocks comprise marbles and sandstones of the Silurian Chillagoe Formation and skarns are frequently developed in reaction zones at the contact points between these different rock types. Mineralisation also frequently develops in these skarns, and within stockwork vein systems within and around the porphyries.

Charters Towers

SRK has not previously reviewed exploration ground held by MUX in the Charters Towers area. Due to the time constraints of this review and valuation, SRK has relied upon the desktop review of the Charters Towers exploration areas by MUX as the basis of its review and in valuing the area. The full report has been provided as Appendix B.

SRK's review of the Charters Towers area is at a very high level.

SRK took particular note of the historic assay results identified by MUX; these values include downhole assays, bulk samples and rock chip samples. Whilst SRK has not validated these reported results or the original exploration reports, it is considered that they appear reasonable based on SRK's knowledge of the area.

SRK has performed a basic verification check of the potential of the exploration areas spatially by reviewing the known mineral occurrences in the area. This was accomplished by downloading the known mineral occurrences layers from the Queensland 'MinesOnlineMaps' system and reviewing those occurrences in proximity or located within MUX's tenure.

SRK notes that the total value of the exploration areas is a minor component of the total value ascribed to MUX's assets.

Market Analysis

SRK has reviewed the current commodity prices and trends with particular reference to the commodity prices at the date of the previous valuation December 2013 (SRK, 2014). The commodity price trends can be reviewed in Figure ES- 1.

Since the previous valuation Australian zinc and gold prices have increased by a factor of ~19% and 12% respectively; copper, lead and silver commodities have generally decreased by a factor of approximately 3–4%.

SRK considers that MUX's Resources are predominantly gold and zinc; therefore, the current commodity pricing factors favour an increase in the value of comparable transaction on a $/t and $/oz basis. These factors support an increase in potential value since the previous valuation date.

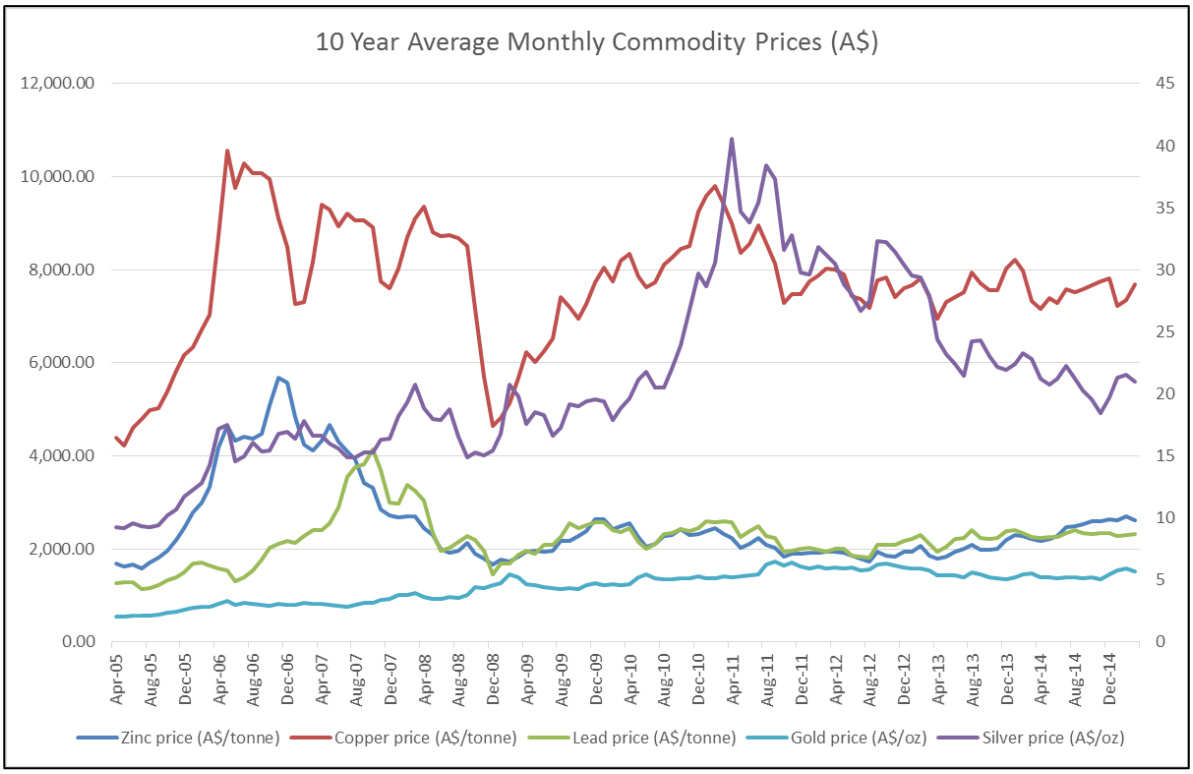

Figure ES- 1: Average monthly commodity prices

Source: http://www.indexmundi.com/.

Valuation

The valuation of MUX's assets was divided into three categories, in accordance to the following Development Stage Categories (Page 21 of the VALMIN Code 2005):

- ***Exploration Areas*** – Properties where mineralisation may or may not have been identified, but where a Mineral or Petroleum Resource has not been identified;
- ***Advanced Exploration Areas*** – Properties where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation. A resource estimate may or may not have been made but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the resource category; and
- ***Pre-Development Projects*** – Properties where Mineral or Petroleum Resources have been identified and their extent estimated (possibly incompletely) but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral or Petroleum Resources have been identified, even if no further Valuation, Technical Assessment, delineation or advanced exploration is being undertaken.

SRK favoured the use of the Comparable Transaction method of valuation supported by the Metal Transaction Ratio (MTR, base metal deposits), both market-based approaches, for the valuation of Pre-Development and Advanced Exploration projects. An alternative method was applied to the valuation, as prescribed by VALMIN, in order to provide a cross-check. The Yardstick (Rule of Thumb) method, which is also a market-based approach, was used in this study.

SRK recommended preferred values and value ranges for exploration properties on the basis of

declared Resources, Exploration Targets and areal extent of tenure. In the case of the Pre-Development Projects and Advanced Exploration Areas, SRK calculated and compared the cost per metal ounce or tonne valuation factors. The MTR method has also been considered when valuating MUX's base metal deposits. These were compared to Yardstick factors as a means of cross-checking. SRK's value ranges adopted for these projects were considered reasonable on this basis. In the case of the Exploration Areas, SRK has also considered exploration commitments and expenditure, as well as a Modified Kilburn rating system to arrive at an estimated valuation range.

SRK's preferred value was then determined within the range of possible values obtained for each deposit, considering all the available information provided by MUX.

SRK notes that the VALMIN Code 2005 cautions against ascribing value to licences under application.

King Vol is located within Mining Licence Application, MLA 20658; however, the project is also within EL 7672, a granted Exploration Licence. SRK has not applied a discount to account for the risk that the licence may be not granted, as this valuation is focused on the Resources and not Reserves at this stage.

While evaluating Resource Comparable Transactions, SRK has, in some cases, considered a metal ratio in order to compare transactions with more than one predominant metal or potential for future metal credits. The metal ratio considered by SRK is similar to the calculation of metal equivalents, but considers 100% recovery for all relevant metals within the resources, as at the early exploration stages reliable and accurate recovery data is not available in most cases. SRK has not attempted to disclose JORC-compliant Mineral Resources using metal equivalents in this report.

In general, these methods are accepted valuation approaches for mineral projects and are in common use for determining Fair Market Value of mineral assets, using market derived data. The "Fair Market Value" is defined by VALMIN (2005) as the amount of money (or the cash equivalent of some other consideration) determined by the relevant expert in accordance with the provisions of the VALMIN for which the mineral asset should change hands, on the relevant date in an open and unrestricted market between a willing buyer and a willing seller in an 'arm's length' transaction, with each party acting, knowledgeably, prudently and without compulsion. The Fair Market Value is usually comprised of two components, the underlying Technical Value (defined below) of the mineral asset, and a premium or discount related to market, strategy or other considerations.

The "Technical Value" is defined in the VALMIN as an assessment of a mineral asset's future net economic benefit at the valuation date under a set of assumptions deemed most appropriate by a relevant expert or specialist, excluding any premium or discount to account for such factors as market or strategic considerations.

Overall, funds for early stage/resource definition exploration projects have become a major issue for the junior companies in the past few years, including 2015. SRK understands the market conditions should be considered in this valuation, and as a result preferred values have been selected towards the lower value of the valuation range.

SRK's recommended valuation ranges and preferred values for each project are detailed in Section 5. SRK has determined a fair market value (as defined by VALMIN). SRK's preferred values includes additional technical considerations related to the mineralisation, such as grade and depth. It also considers the information based on existing technical reviews and verbal information provided on the projects provided by the MUX management team.

Table ES-2: Summary of SRK's Valuation

Project	Owner	Low Value (A$M)	High Value (A$M)	Preferred Value (A$M)
Pre-Development Projects				
Mungana*	MUX	13.2	27.3	16.5
Red Dome**	MUX	19.4	40.2	22.8
Griffiths Hill	MUX	1.0	3.4	1.9
King Vol	MUX	5.2	13.3	9.1
Total Pre-Development Projects		**38.8**	**84.2**	**50.3**
Advanced Exploration Areas				
Mungana Base Metal Lode***	MUX	0.1	0.3	0.1
Penzance	MUX	0.3	0.9	0.6
Queenslander***	MUX	1.0	2.6	1.3
Morrisons***	MUX	1.7	5.0	2.3
Victoria***	MUX	2.9	7.8	3.7
Montevideo***	MUX	0.7	2.0	0.7
Red Dome Leach Pad***	MUX	0.4	1.6	0.5
Shannon-Zillmanton***	MUX	0.3	1.2	0.5
Total Advanced Exploration Areas		**7.4**	**21.3**	**9.7**
Exploration Areas				
Chillagoe	**100% MUX**	**3.0**	**6.1**	**4.0**
Charters Towers	**100% MUX**	**1.0**	**5.5**	**3.5**
Total Exploration Areas		**4.0**	**11.6**	**7.5**
Total After Transaction		**50.2**	**117.1**	**67.5**

***Mungana Pre-Development Project:** SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting the Resources into Reserves. This is related to the existence of flooded underground workings, lower grade and the depth of underground workings. The impact of the depth of the underground resource is minimised by the presence of a decline in place to 650 m.

****Red Dome Pre-Development Project:** SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting Resources into Reserves due to the existence of flooded pits, lower grade, depth of resources and metallurgical issues due to problematic clay mineralogy encountered in the oxide profile at Red Dome.

*****Base Metal Projects preferred values:** SRK has generally considered the average of the lower values derived from each of the three methods (comparable transactions, Yardstick and MTR) as the preferred value for the polymetallic base metal projects. Where average grades were considered to be low SRK has chosen a value based on the primary valuation method and considered appropriate given the range of values and grade and tonnes.

SRK has then considered a final range for the MUX assets based on a 15% range around the preferred value (Table ES-3).

SRK's valuation of MUX's assets is generally towards the lower end of the ranges derived by the analysis of comparative transactions and supporting methods. Whilst SRK's preferred value is positioned conservatively within this range, SRK has adopted this position due to varying levels of technical and geological uncertainties (Section 6) across the MUX assets.

SRK has provided an estimate of fair market value of the MUX assets. SRK has not provided an estimate of the value of Mungana Goldmines Ltd.

Table ES-3: Summary of SRK's Valuation of MUX's assets as of May 2015

Project	Owner	Low Value (A$M)	High Value (A$M)	Preferred Value (A$M)
Mungana Total Assets	MUX	57.4	77.6	67.5

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Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (Australasia) Pty Ltd (SRK) by Mungana Goldmines Ltd (MUX). The opinions in this Report are provided in response to a specific request from Grant Thornton Corporate Finance Pty Ltd (Grant Thornton) to do so. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this Report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which SRK had no prior knowledge nor had the opportunity to evaluate.

List of Abbreviations

Abbreviation	Meaning / Definition
%	percent
~	approximately
<	less than
>	greater than
3D	3-dimensional
A$	Australian dollars
Ag	silver
ASX	Australian Securities Exchange
Au	gold
Auctus	Auctus Chillagoe Pty Ltd
AusIMM	Australasian Institute of Mining and Metallurgy
BAC	base acquisition cost
Bi	bismuth
Cu	copper
DCF	discounted cash flow
E	east
EL	Exploration Licence
EPM	Exploration Permit Minerals
g/t	grams/tonne
GRA	Gold Rights Agreement between MUX and KZL
Grant Thornton	Grant Thornton Corporate Finance Pty Ltd
H&S	H&S Consultants (H&S) formerly Hellman & Schofield Pty Ltd)
HoA	Heads of Agreement
ID^2	inverse distance squared
ITR	Independent Technical Report
JORC Code 2004	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC), 2004.
JORC Code 2012	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC), 2012.
k	thousand
km / km²	kilometre / square kilometres
KZL	Kagara Ltd
m	metre
M	million
m^3	cubic metre
MEE	Multiples of Exploration Expenditure
MEG	Metals Economics Group
MLA	Mining Licence Application

Abbreviation	Meaning / Definition
Mo	molybdenum
Moz	million ounces
MPL	Mungana Pty Ltd
Mt	million tonnes
MTR	Metal Transaction Ratio
MUX	Mungana Goldmines Ltd
N	north
OK	ordinary kriging
oz	ounce(s)
Pb	lead
ppm	parts per million
QA/QC	quality assurance / quality control
QDEX	Queensland Digital Exploration Reports System
S	south
SG	specific gravity
Sn	tin
SRK	SRK Consulting (Australasia) Pty Ltd
T	tonne
™	Trademark
US$	United States dollars
VALMIN Code 2005	Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports. The VALMIN Code is the code adopted by The Australasian Institute of Mining and Metallurgy and the standard is binding upon all AusIMM members.
W	west
W	tungsten
WPG	Western Plains Resources Ltd
Zn	zinc

1 Introduction and Scope of Report

1.1 Background

SRK Consulting Australasia Pty Ltd (SRK) was engaged by Grant Thornton Corporate Finance Pty Ltd (Grant Thornton) to prepare an Independent Technical Report and Mineral Resource Valuation (ITR) for the mineral assets of ASX listed Mungana Goldmines Ltd (MUX).

SRK has previously provided a valuation of all of the assets now held by Mungana, except for the Charters Towers Exploration Area. The previous valuation was included in Grant Thornton's Independent Expert's Report to accompany a transaction where MUX was to acquire 100% of Kagara Ltd (KZL)'s Chillagoe Northern Region tenements.

In accordance with the VALMIN Code, mineral assets comprise all property including but not limited to real property, intellectual property, mining and exploration tenements held or acquired in connection with the exploration of, the development of and the production from those tenements together with all plant, equipment and infrastructure owned or acquired for the development, extraction and processing of minerals in connection with those tenements.

For this valuation, all exploration projects were classified according to the Development Stage Categories (page 21 of the VALMIN Code 2005):

- **Exploration Areas –** Properties where mineralisation may or may not have been identified, but where a Mineral or Petroleum Resource has not been identified;
- **Advanced Exploration Areas –** Properties where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A resource estimate may or may not have been made but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the resource category;
- **Pre-Development Projects –** Properties where Mineral or Petroleum Resources have been identified and their extent estimated (possibly incompletely) but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral or Petroleum Resources have been identified, even if no further Valuation, Technical Assessment, delineation or advanced exploration is being undertaken;
- **Development Property** – Properties for which a decision has been made to proceed with construction and/or production, but which are not yet commissioned or are not yet operating at design levels; and
- **Operating Mines** – Mineral properties, particularly mines and processing plants that have been commissioned and are in production.

1.2 Mungana Tenements and Resource Projects

MUX's projects and tenements are all located in Queensland, Australia. The stage of development of each of the assets is listed below.

Resource Projects

- Mungana/ Red Dome (Pre-Development Projects);
- King Vol and Griffiths Hill/Red Dome (Pre-Development Projects);
- Mungana Base Metal Lode (Advanced Exploration Area);
- Shannon-Zillmanton (Advanced Exploration Area);
- Red Dome Leach Pad (Advanced Exploration Area);
- Penzance, Montevideo, Victoria, Queenslander and Morrisons (Advanced Exploration Areas);

Exploration Ground

- Chillagoe Exploration (Exploration Area); and
- Charters Towers (Exploration Area).

All tenure is 100% owned by MUX.

Table 1-1: Mungana Goldmines Ltd's tenement holding

Tenement	Project	Status	Sub-blocks
EPM 12902	Arkaroola	Granted	5
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ML 4977	Griffiths 2	Granted	-
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ML 5319	North West Mungana	Granted	-
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EPM 25148	Liontown 5	Granted	34
EPM 25270	Liontown 6	Granted	3
EPM 25271	Liontown 7	Granted	46
EPM 25437	Liontown 8	Granted	100
EPM 25680	Liontown 9	Granted	29

1.3 Tenements Status and Compliance

SRK has reviewed tenure listing as provided to SRK by MUX. SRK has cross-checked these licences against publicly available datasets and confirmed that the licences and areas match those areas in the public datasets. All tenure lists MUX as the authorised holder.

SRK has not independently verified the current tenement status in detail and cannot comment on compliance status of these tenements.

The ML 20658 is an application. SRK is not aware of any material change to the status of this application since the previous valuation conducted by SRK in December 2013.

2 Programme Objectives and Work Programme

2.1 Programme objectives

This Mineral Resource Valuation has been prepared by SRK under instructions from Grant Thornton who has been retained by MUX. This Report complies with the technical property information required under various securities laws of Australia.

2.2 Scope of Work

SRK will prepare a new report to the standard of a Technical Assessment Report under the guidelines of the JORC and VALMIN Codes, using the previous valuation work undertaken by SRK as a starting basis for the new report. The VALMIN Code is the code adopted by The Australasian Institute of Mining and Metallurgy (AusIMM) and the standard is binding on all members of The AusIMM. The VALMIN Code incorporates the JORC Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves.

As per the VALMIN Code, a first draft of the report will be supplied to Mungana to check for material accuracy before the final report is issued. SRK's scope of work is limited to the second draft of the report after a round of edits by Mungana. The final report will be issued following review of any client comments by the project team.

SRK will select the most appropriate valuation technique for the exploration assets based on the development stage of the projects and the amount of information available.

The valuation is current at 10 May 2015 and monetary amounts are in United States dollars (US$) and Australian dollars (A$) as specified throughout the Report. The final valuation is provided in A$ factored to the most recent average monthly commodity prices (March 2015).

SRK has selected the most appropriate valuation technique for the assets, based on the development stages of the projects and the amount of available information. This SRK Valuation Report expresses an opinion regarding the value of the mineral assets. It does not comment on the 'fairness and reasonableness' of any transaction between the project's owners and any other parties.

2.3 Reporting Standard

This Report has been prepared to the standard of, and is considered by SRK to be, a Technical Assessment Report under the guidelines of the VALMIN Code 2005. The VALMIN Code is the code adopted by The Australasian Institute of Mining and Metallurgy and the standard is binding upon all The AusIMM members. The VALMIN Code incorporates the JORC Code for the reporting of Mineral Resources and Ore Reserves. It should be noted that the authors of this Report are Corporate Members of The AusIMM and, as such, are bound by the VALMIN.

Where SRK has relied on Mineral Resource Estimates for its valuation, SRK has quoted the Competent Person for these resources and has obtained their consent to do so.

2.4 Key Sources of Data

Data and information on the assets used to prepare this report are referenced throughout the report.

2.5 Effective Date

The effective date (Effective Date) of this report is deemed to be 10 May 2015.

2.6 Indemnities

As recommended by the VALMIN, MUX has agreed to provide SRK with an indemnity (letter dated 27 May 2015) under which SRK is to be compensated for any liability and/or any additional work or expenditure resulting from any additional work required:

- Which results from SRK's reliance on information provided by MUX or to MUX not providing material information; or
- Which relates to any consequential extension workload through queries, questions or public hearings arising from this Report.

2.7 Verification, Validation and Reliance

MUX has confirmed in writing to SRK that full disclosure has been made of all material information and that to the best of its knowledge and understanding, the information provided by it, was complete, accurate and true and not incorrect, misleading or irrelevant in any material aspect. SRK has no reason to believe that any material facts have been withheld.

The report herein is dependent upon technical inputs as provided by MUX and Grant Thornton and was taken in good faith by SRK. SRK has not independently verified Mineral Resources estimates by means of recalculation.

2.8 Work Programme

The Project commenced in early May 2014, with a review of existing remote electronic company data and other information sourced by SRK from literature and company websites as well as using subscription databases such as Intierra and Metals Economics Group (MEG) database services. SRK consultants worked through the relevant databases, compiled the report and completed research on comparable market transactions to assist with the valuation.

SRK notes that the VALMIN Code 2005 in Clause 65 recommends that a site inspection be completed should it be 'likely to reveal information or data that is material to the report'. MUX has advised SRK via Grant Thornton that site visits to the most advanced exploration projects are not considered material, as both the existing underground and open pits are currently flooded. Therefore, a site visit was not undertaken for this project.

As per the VALMIN Code 2005, a first draft of the report was supplied to Andrea de Cian (Grant Thornton) to check for material accuracy on 26 May 2015. The final report was supplied to Grant Thornton on 27 May 2015.

SRK has conducted a review and assessment of the available technical information for MUX projects, which included the following:

- Access to key, MUX and Grant Thornton personnel for discussion and enquiry;
- A review of its Mineral Resource estimates, including the methodologies applied in determining such estimates and classifications; and
- A review of Technical Reports and supporting documentation prepared by MUX.

This report has been prepared based on a technical review by a team of consultants sourced from SRK's offices in Australia. Details of the qualifications and experience of the consultants who have carried out the work in this report, who have extensive experience in the mining industry and are members in good standing of appropriate professional institutions, are set out below.

- Christopher Woodfull, Principal Consultant (Geology), MSc (Hons), MAusIMM, MAIG – Geological and Structural Exploration and Evaluation, Independent Technical Reviews Valuation and Reporting;

- Bryce Healy, Principal Consultant (Geology), PhD (Geology), MAIG – Geological and Structural Exploration and Evaluation, Independent Technical Reviews, Valuation and Reporting;
- Mathew Davies, Senior Consultant (Geology), BSc (Hons), MAusIMM – Mineral and Coal Exploration, support for Independent Technical Reviews, Valuation and Reporting; and
- Trivindren Naidoo, Senior Consultant (Geology), MSc, MAusIMM, MGSSA, Pr.Sci.Nat. (South Africa), 400262/05 – Mineral Exploration, support for Independent Technical Reviews, Valuation and Code Compliant Reporting.

2.8.1 Legal Matters

SRK has not been engaged to comment on any legal matters.

2.9 Limitations, Reliance on Information, Declaration and Consent

2.9.1 Limitations

SRK's opinion contained herein is based on information provided to SRK by MUX and Grant Thornton throughout the course of SRK's investigations as described in this report, which in turn reflect various technical and economic conditions at the time of writing.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals, averages and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK does not consider them to be material.

As far as SRK has been able to ascertain, the information provided by MUX and Grant Thornton was complete and not incorrect, misleading or irrelevant in any material aspect.

2.9.2 Reliance on Information

SRK believes that its opinion must be considered as a whole and that selecting portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the opinions presented in this report. The preparation of such a report is a complex process and does not lend itself to partial analysis or summary.

SRK's effective date for the Report (Section 2.5) is based on information provided by MUX throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the date of this report.

SRK has no obligation or undertaking to advise any person of any change in circumstances which comes to its attention after the date of this review, revise or update the report or opinion.

2.9.3 Statement of SRK Independence

Neither SRK nor any of the authors of this Report have any material present or contingent interest in the outcome of this Report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of SRK.

SRK has no prior association with MUX or Grant Thornton in regard to the mineral assets that are the subject of this Report apart from having provided technical advice to MUX regarding the Projects and to a financial institution regarding MUX assets. SRK has no beneficial interest in the outcome of the technical assessment being capable of affecting its independence.

SRK's fee for completing this Report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the Report.

2.9.4 Consent

SRK consents to this report being included, in full, in Grant Thornton documents in the form and context in which the technical assessment is provided, and not for any other purpose. SRK provides this consent on the basis that the technical assessments expressed in the Summary and in the individual sections of this Report are considered with, and not independently of, the information set out in the complete Report.

Mr Christopher Newman and Mr Andrew Beaton, employees of MUX, have consented to the Mineral Resource Estimation in sections 3 and 4 being included in the form and context in which it is included, and have not withdrawn this consent as at the date this disclosure document is lodged with ASIC.

SRK refers to the previous consent provided in the report provided to the ASX, Notice of EGM and IER, 03/06/2014; King Vol Zinc Deposit Resource Update, 28/01/2015; and Red Cap Resources re-issued, 27/04/2015. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

2.9.5 Consulting Fees

SRK's fee for completing this Report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the Report.

3 Mineral Resources Review

This section represents a very high level review of the existing resources for the valuation of MUX's Pre Development Projects. Due to time and scope constraints imposed by this type of study, SRK has relied upon a previous review where there has been no material change to the asset. SRK completed a high level review of the Mineral Resources Estimates for the following MUX Pre-Development Projects in February 2013:

- Mungana; and
- Red Dome.

A summary of SRK's Mineral Resource review for Mungana and Red Dome is provided in Section 3.1.

SRK also completed a Mineral Resource review of the following Pre-Development Projects in December 2013 (SRK, 2014), which were later acquired by MUX:

- Griffiths Hill/Red Dome; and
- King Vol.

A summary of this review is provided in Section 3.2.

SRK's opinion is that the stated global figures for each deposit's Mineral Resources are acceptable as representation of global grades and tonnages. However, SRK has a different opinion from the stated resource classifications and believes that additional consideration of a geological or spatially meaningful approach to classification should have been considered, to address possible future issues with potentially poor conversion to Reserves.

SRK notes that while none of the Resources reviewed presents fatal flaws, additional improvements to the current Resource estimates are required to increase the confidence in each of the resource classifications. Therefore, for the purposes of valuation, only the global resource estimates were considered.

3.1 Summary of MUX Reviewed Resource

SRK reviewed the following documents and data during its February 2013 review process:

- 2010 resource report for Mungana and Red Dome deposits (H&S Consultants (H&S) formerly Hellman & Schofield Pty Ltd);
- 2012 resource update memos for the Mungana and Red Dome deposits (H&S);
- 2012 resource reviews of the Mungana and Red Dome deposits (EGRM Consulting);
- 2012 replies to review of the Mungana and Red Dome deposits (H&S);
- Drill hole databases as used for each resource estimate for Mungana and Red Dome, supplied in Microsoft Access format;
- Final and interim block models for Mungana and Red Dome in Surpac™ model format; and
- 3D wireframe models for geology and mineralisation used in the resource estimates of Mungana and Red Dome.

All Pre-Development Projects Resource estimates completed by MUX were publicly disclosed as compliant with the JORC Code 2004 and press releases are available on the Company's website. The statement of Resources, by classification category, for each MUX project assessed is presented in Table 3-1.

Table 3-1: Resource Statement - Mungana and Red Dome Pre-Development Projects

Resource	Category	Tonnes (Mt)	Au (g/t)	Cu (%)	Ag (g/)t	Au (koz)	Cu (tonnes)	Ag (Moz)
Mungana January 2012	Measured	13.4*	0.67	0.24	17.6	289	32,000	7.6
	Indicated	19.3	0.72	0.18	12.7	450	34,000	7.9
	Inferred	15.1*	0.63	0.17	9.5	304	25,000	4.6
Red Dome October 2011	Measured	25.4	0.74	0.30	5.5	605	76,000	4.5
	Indicated	24.0	0.56	0.19	4.9	429	46,000	3.8
	Inferred	25.7	0.61	0.16	5.3	500	41,000	4.4

*Note: The Resource Statement for Mungana as reviewed here relates to an interim update completed by H&S Consultants in 2012. The publicly quoted figure corresponds to the original Resource estimate prepared for the evaluation of block caving mining scenarios in December 2010. SRK has reviewed the Mungana Resource on the basis of the 2012 update, which was considered for the valuation.

The information that relates to Exploration Results and Mineral Resources in this section of the report was provided by Dr Adrian McArthur, the General Manager Exploration for Mungana Goldmines Ltd, who is a member of The Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company. Dr McArthur has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

SRK refers to the previous consent provided in the report provided to the ASX, Notice of EGM and IER, 03/06/2014. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

3.1.1 Mungana

Both Mungana and the proximal Red Dome deposits are hosted within apophyses of Carboniferous granite porphyry, surrounded by hydrothermal breccia, within Silurian-Devonian limestone units of the Chillagoe Formation (Liam, 2010). A significant alteration halo comprising both endo- and exoskarns surrounds this system. At Mungana, gold is contained within narrow quartz veins and brecciated zones, commonly with a quartz/ skarn matrix mix. The gold lode is considered to have a diffuse boundary, controlled by the density of these quartz veins. Within Mungana, a large stratabound base metal lode (Kagara Lode) intersects and is often partially coincident with the gold mineralisation.

The Mineral Resource Estimate referred to in this review was produced by H&S in January 2012 as an update to the December 2010 Mineral Resource Estimate also produced by H&S. The metals gold (Au), silver (Ag), copper (Cu), zinc (Zn) and lead (Pb) were estimated. The currently publicly available quoted Resource figures differ from those made available to SRK for review in the latest Resource update, as they are based on a previous estimate (see Table 3-1 notes). The differences in contained Au between the two sets of figures are presented in Table 3-2. SRK notes the impact of this difference to the Mungana valuation is not material.

Table 3-2: Summary of difference in Mungana Resource Statement – Public Domain data versus latest Resource Report – January 2012

Resource	Category	Tonnes (Mt)	Au (g/t)	Cu (%)	Ag (g/)t	Au (koz)	Cu (tonnes)	Ag (Moz)
Mungana Public Domain	Measured	15.6	0.87	0.29	21.6	436	44,800	10.8
	Indicated	19.3	0.68	0.15	10.3	422	28,300	6.4
	Inferred	13.8	0.54	0.14	8.0	237	18,700	3.6
Mungana January 2012	Measured	13.4	0.67	0.24	17.6	289	32,000	7.6
	Indicated	19.3	0.72	0.18	12.7	450	34,000	7.9
	Inferred	15.1	0.63	0.17	9.5	304	25,000	4.6
Difference	Measured	-2.2	-0.2	-0.05	-4.0	-147	-12,800	-3.2
	Indicated	0	+0.04	+0.03	+2.4	+28	+5,700	+1.5
	Inferred	1.3	+0.09	+0.03	+1.5	+67	+6,300	+1

The Mungana deposit has been modelled for both geology and mineralisation. The geological model presents a roughly triangular, upwardly convergent core of limestone striking E-W to ENE-WSW, with a hanging wall and footwall rind of skarn, bounded on both the hanging wall and footwall by sandstone. The peak of the convergent skarn rind is complexly intermixed with a sub-vertical tabular body of breccia.

Apophyses of porphyry intrude the central limestone unit, and also roughly trace the hanging wall skarn. The main lodes of gold mineralisation broadly coincide with the hanging wall and footwall skarns and also transgress the limestone unit as sub vertical to steeply north dipping layers. These main lodes have been identified on a combination of ~1 g/t Au cut-off and geological interpretation of continuity.

Base metals lodes have been modelled independently, based on a combination of exploration drilling data analysis showing no correlation between other metal distributions and gold. Scatter diagrams, and H-scatter diagrams produced for selected lodes by SRK indicate this approach to be appropriate, and the result to be contextually meaningful.

Responsibility for the validity of the drilling data input to the Mungana Resource has been assumed by MUX. SRK's brief validation of the data, which included a check for overlapping intervals, assignation of appropriate codes in the database for absent assay data, visual validation of obvious survey errors and drill hole length discrepancy errors, shows no significant errors.

SRK's validation of the Mungana model showed that the stated Mineral Resource values for both grade and tonnage are reproducible within an error of less than 0.5%. SRK considers the Mungana estimate to be acceptable as a global estimate.

3.1.2 Red Dome

Like the Mungana deposit, the Red Dome deposit is hosted within apophyses of Carboniferous porphyry, surrounded by hydrothermal breccia, within Silurian-Devonian limestone units of the Chillagoe Formation (Liam, 2010). A significant alteration halo comprising both endo- and exoskarns surrounds this system. At Red Dome, gold is contained within narrow Au (± metallic sulphides/Ag) bearing quartz veins.

The Mineral Resource estimated for gold, silver and copper for Red Dome was considered by SRK to be acceptable as a global estimate (SRK, 2014).

3.2 Summary of Resources previously held by KZL

This section represents a very high level review of the existing Resources for the valuation of the MUX Pre-Development Project previously held and estimated by KZL. Due to the time and scope constraints imposed by this type of study, SRK has relied upon the previous review conducted by SRK where there has been no material change to the asset.

SRK completed a high level review of the current Mineral Resources estimates for the Griffiths Hill Pre-Development Project in 2013. The statement of Resources, by classification category, for the project assessed in 2013 is presented in Table 3-3.

Table 3-3: Resource Statement - Griffiths Hill/ Red Dome and King Vol Pre-Development Projects

Deposit	Category	Type	Mineral	Tonnes	Zn (%)	Pb (%)	Cu (%)	Au (g/t)	Ag (g/)t
Griffiths Hill	Inferred	Fresh	Copper	1,011,000	0.4	0.00	3.1	0.6	61
Griffiths Hill	Inferred	Fresh	Polymetallic	58,000	6.9	0.0	0.3	0.0	12

The information above that relates to the above Mineral Resources is based on information compiled by Mr Andrew Beaton, who is a member of the Australasian Institute of Geoscientists. Mr Beaton was a full-time employee of KZL, and 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

SRK refers to the previous consent provided in the report provided to the ASX, Notice of EGM and IER, 03/06/2014. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

SRK completed a high level review of these Mineral Resource estimates and the findings are summarised below:

- No fatal flaws have been identified by SRK within the Griffiths Mineral Resource Estimate reports and associated data;
- The standard of reporting for Griffiths Hill Mineral Resource Estimate is below industry standard;
- SRK considers it is likely that the majority of Inferred Resources for Griffiths Hill will be converted to Indicated Resources with increased drilling;
- Data acquisition and Resource estimation procedures are of sufficient detail and quality to support the Mineral Resource estimates, with the exception of reported QA/QC data;
- KZL has used conventional block modelling and grade estimation techniques, which are considered suitable for the Griffiths Hill deposits; and
- SRK independently confirmed the tonnage and grade by interrogating the Resource models provided by KZL for Griffiths Hill, with the exception of molybdenum grades within the Griffiths Well zinc zone.

3.2.1 Griffiths Hill/ Red Dome Resource Estimate

The geology of the Griffiths Hill deposit is only reported scarcely in the memorandum titled 'Griffiths Hill – IH resource update' (GH Memo) dated 10 October 2011 by Carolyn Deacon, full-time ex-employee of KZL. The GH memo indicates that the Mineral Resource is restricted to the contact position between the limestone and sandstone.

A total of 34 diamond drill holes were used to estimate the Griffiths Hill Mineral Resource. No QA/QC was reported within the GH Memo. The lack of QA/QC data decreases confidence in the sample assay data. SRK recommends that a resampling campaign occurs which incorporates a QA/QC programme to increase confidence in the drill hole assay data.

Mineralisation was modelled using a 0.5% Cu cut-off grade and a 3D wireframe was created. Mineralisation has a reasonably simple tabular geometry as demonstrated in Figure 3-1 and Figure 3-2, and was restricted to two mineralised zones. The first zone is the copper and the second is a zinc (polymetallic) zone. The copper-rich zone constitutes the vast majority of the mineralisation. The zinc-rich zone is only intersected by two drill holes that are 100 m apart.

Mineralisation is within the unoxidised zone, as the top of Griffiths Hill mineralisation is located >250 m below the surface. Mineralisation displays strong continuity and provides a strong fundamental confidence in the Griffiths Hill Mineral Resource Estimate.

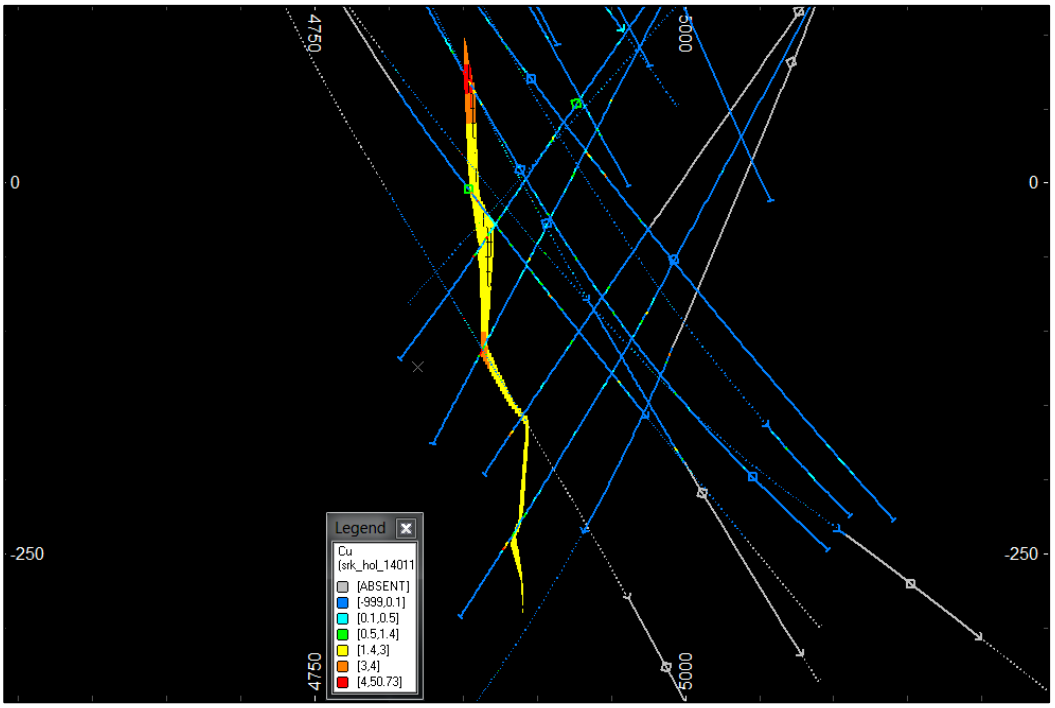


Figure 3-1: Griffiths Hill 7200 mE cross section showing block model

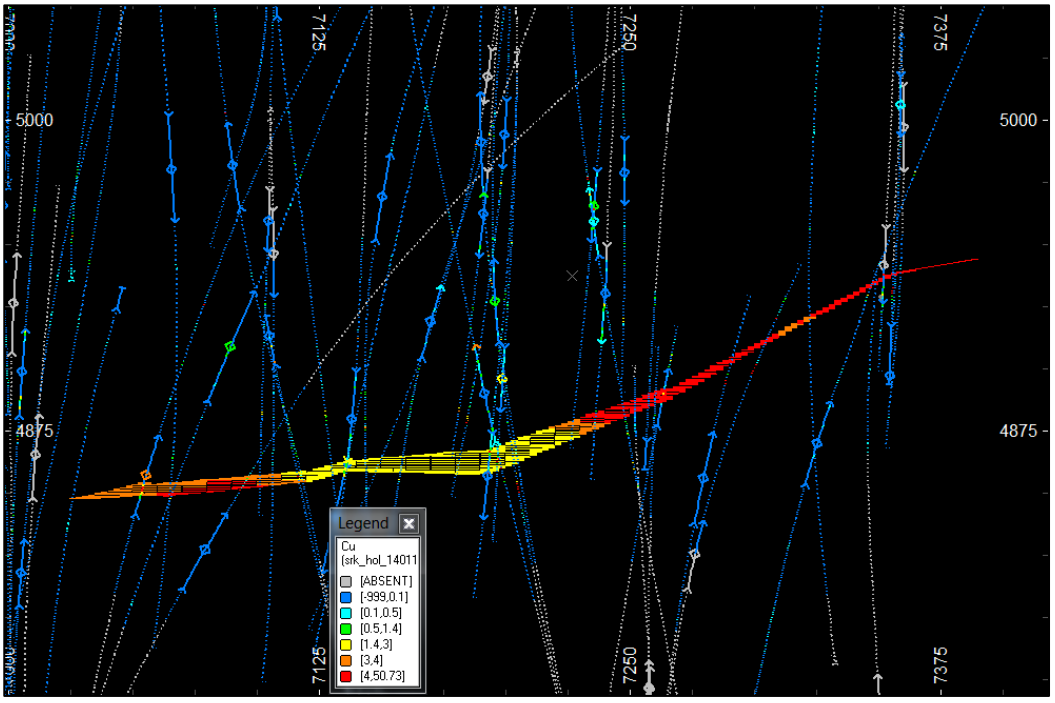


Figure 3-2: Griffiths Hill plan view at -50 mRL showing block model

No classical statistics were reported. No top-cutting was applied using the rationale of insufficient data. SRK is of the opinion that log probability plots should have been reported and then determined whether they were appropriate to determine top-cuts. No geostatistical analysis was undertaken due to the small amount of drill hole data, which SRK agrees is appropriate.

Surpac™ software was used by KZL to estimate the Griffiths Hill Mineral Resource tonnage and grade. SRK independently confirmed the tonnage and grade by interrogating the gh_oct2011.mdl model provided by KZL, with the exception of Molybdenum grades within the Zinc zone.

Single composite grades were generated for each drill hole intersection within the copper and zinc wireframes. The composites were then used to generate grades using the inverse distance squared (ID^2) method. SRK is of the opinion that the global grade of the copper rich zone was reasonable; however, SRK has low confidence in localised block grades.

Molybdenum (Mo) grade for the Zinc zone was estimated at 416.39 ppm Mo. SRK is of the opinion that this is incorrect and the grade reported from the gh_oct2011.mdl resource model should be 2 ppm Mo. The Mo grades displayed in the model and drill hole (Figure 3-3) clearly show low Mo grades of approximately 3 ppm Mo.

No model validation was reported in the GH memo.

Due to the drill hole spacing and lack of QA/QC data, SRK is in agreement with the Inferred Resource categorisation.

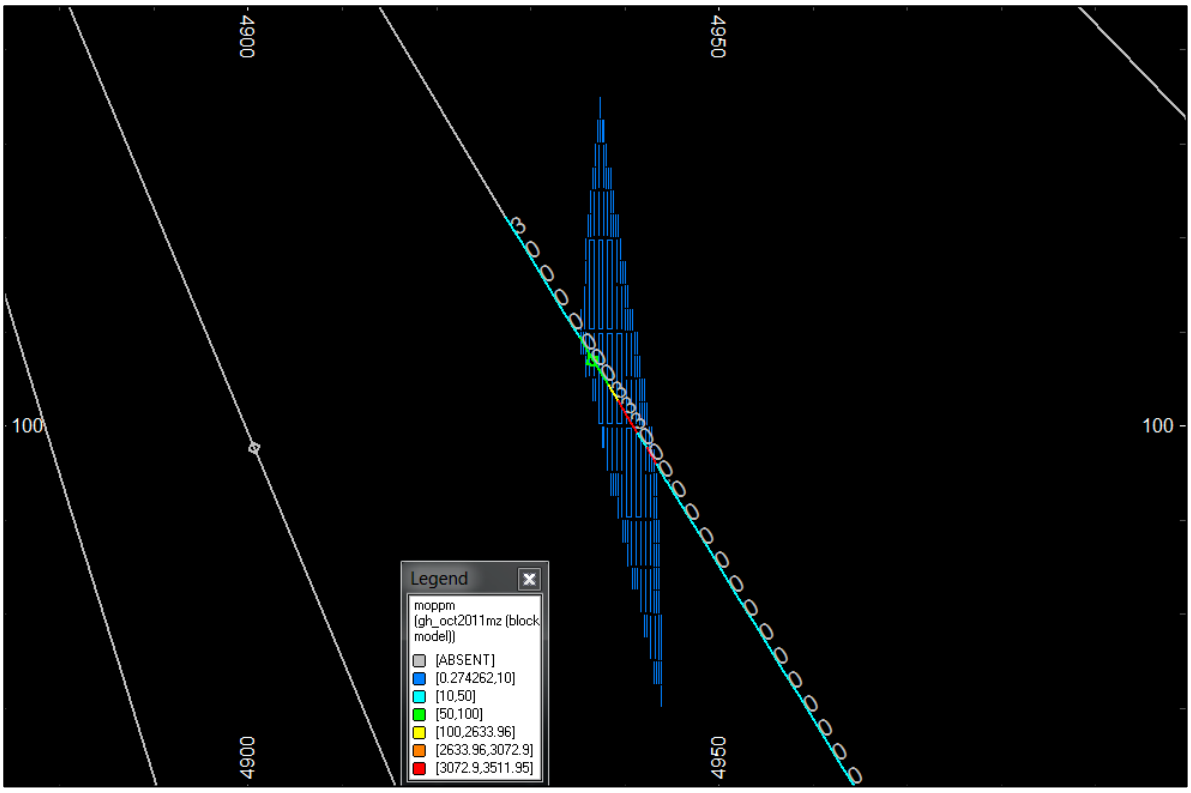


Figure 3-3: Molybdenum grades displayed in the zinc-rich zone

3.2.2 Summary of Resource Update and Upgrade to JORC 2012 for King Vol

SRK completed a high level review of the 2012 Mineral Resources estimates for the King Vol Pre-Development Project in 2013. The findings of this 2013 review are summarised below:

- No Fatal Flaws have been identified by SRK within King Vol Mineral Resource estimate reports and associated data;

- The local geology of the King Vol deposit is reasonably well understood;
- SRK considers it is likely that the majority of Inferred Resources for King Vol will be converted to Indicated Resources with increased drilling;
- Data acquisition and Resource estimation procedures are of sufficient detail and quality to support the Mineral Resource estimate;
- KZL has used conventional block modelling and grade estimation techniques, which are considered suitable for the King Vol; and
- SRK independently confirmed the tonnage and grade by interrogating the Resource models provided by KZL for King Vol.

SRK notes that a Resource update for the King Vol Project was completed in December 2014 and reported to a JORC 2012 standard. SRK has provided a comparison of the two Resource estimates for King Vol in Table 3-4.

Table 3-4: Comparison of previously reported Resource Estimates

Resource Estimate	Category	Tonnage (Mt)	Grade (Zn %)	Grade (Cu %)	Grade (Pb %)	Grade (Ag g/t)	Metal (Zn kt)	Metal (Cu kt)	Metal (Pb t)	Metal (Ag Moz)
2012	**Indicated**	0.90	16.00	0.90	0.90	42.00	143.84	8.09	8.09	1.21
	Inferred	1.86	9.90	0.60	0.40	24.00	183.94	11.15	7.43	1.43
2014	**Indicated**	1.05	14.70	0.90	0.70	36.50	153.62	9.00	7.32	1.23
	Inferred	1.94	10.40	0.70	0.50	26.40	202.07	13.00	9.72	1.65

The information in this that relates to Mineral Resources is based on information compiled by Mr Brian Wolfe. Mr Wolfe is a member of the Australasian Institute of Geoscientists (AIG) and has sufficient experience 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 (the "JORC Code"). Mr Wolfe is a full-time employee of International Resource Solutions Pty Ltd and is acting as a consultant to Mungana Goldmines Ltd.

SRK refers to the previous consent provided in the report provided to the ASX, King Vol Zinc Deposit Resource Update, 28/01/2015. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

SRK has reviewed the updated Resource report provided by MUX and notes there have been material changes to the style and nature of the Resource model, which have broadly resulted in increased tonnages with decreasing grade.

The material changes to the model and datasets are described below;

- Mineral Resources were modelled using data derived from the MUX drill hole database. This database is essentially the same as used for the previous update of the King Vol resource completed by KZL in March 2012; however, around 700 sample pulps have been re-assayed due to QA/QC batch failures (relating to standards performance); and
- Previous Resource estimates for the King Vol Skarn Deposit had employed an OK methodology into 33 individually interpreted wireframes with the vast majority of the resource tonnes contained within one interpreted zone. For the purposes of the current Resource estimate, many of these smaller wireframes have been consolidated according to stratigraphical position and a total of three separate wireframes have been used as input.

SRK has reviewed the updated King Vol Resource Report at a high level. Whilst SRK agrees with the broad principles and methods involved in the Resource update SRK has not independently reviewed the Resource model in detail or verified the updated tonnes and grades.

SRK has compared the net value change between these two Resources based on the derived comparable transaction value, dollar per commodity tonne basis. The updated 2014 Resource has potentially resulted in an increased attributable value of 9.0%. Whilst SRK considers this to be a material increase in the value of the Resource it does not consider it to be material to the final valuation of MUX as the net potential increase represents ~1.5% of the final valuation total (Section 6).

SRK also notes that Brian Wolfe is affiliated with International Resource Solutions Pty Ltd and has acted in a consulting capacity to MUX; therefore, SRK has relied on the independence of Brian Wolfe.

SRK has provided the updated 2014 Resource Report in Appendix A.

4 Advanced Exploration Areas

This section represents a very high level review of the existing Resources for the valuation of MUX's Advanced Exploration Project Areas. Due to the time and scope constraints imposed by this type of study, SRK has relied upon a previous review where there has been no material change to the asset.

SRK completed a high level review of the Mineral Resources Estimates for the following MUX Advanced Exploration Projects in December 2013:

- Red Dome Leach Pad;
- Shannon-Zillmanton;
- Mungana Base Metal Lode;
- Montevideo;
- Red Cap Project;
- Penzance;
- Victoria;
- Queenslander; and
- Morrisons.

SRK reviewed the existing Advanced Exploration areas based on information provided by MUX on specific exploration target areas, commonly areas surrounding defined Resources that have yet to be systematically drilled. This section covers Red Dome Leach Pad, Shannon-Zillmanton, Mungana Base Metal Lode, Penzance, Montevideo, Victoria, Queenslander and Morrisons.

According to the JORC Code 2012, an Exploration Target is a statement or estimate in a Public Report of the exploration potential of a mineral deposit in a defied geological setting where there the statement or estimate relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. The potential quantity and grade is conceptual in nature and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The information that relates to Exploration Targets for Red Dome Leach Pad (Section 4.1) and Shannon-Zillmanton (Section 4.2) in this section of the report was provided by Dr Adrian McArthur, the General Manager Exploration for MUX, who is a member of The Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company. Dr McArthur has sufficient experience 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.

SRK refers to the previous consent provided in the report provided to the ASX, Notice of EGM and IER, 03/06/2014. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

SRK completed a high level review of these Mineral Resource estimates and the findings are summarised below.

The information that relates to Mineral Resources/ Exploration Targets for Mungana Base Metal Lode, Penzance and Queenslander-Morrison is based on information compiled by Mr Andrew Beaton, who is a member of the Australasian Institute of Geoscientists. Mr Beaton was a full-time employee of KZL, and 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

SRK refers to the previous consent provided in the report provided to the ASX, Notice of EGM and IER, 03/06/2014. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. SRK completed a high level review of these Mineral Resource estimates and the findings are summarised below.

4.1 Red Dome Leach Pad (SRK 2013 Review)

MUX has a 100% interest in the Red Dome Leach Pad Advanced Exploration area, which has been considered by SRK to have an Exploration Target of 6.9 Mt to 7.3 Mt at 0.22 g/t to 0.41 g/t Au, based on current exploration work (including drilling) and historic surface contours.

SRK completed a high level review of the current estimates for the Red Dome Leach Pad. The Red Dome heap leach pads were constructed in 1986 during operation of the Red Dome mine by Elders Ltd. MUX has recognised the potential for these remnant leach pads to offer an alternative/ additional ore source.

A model of the leach pads was constructed by intersecting a current (pads existing) topography, with a pre-mining topography generated from a 1985 Elders Ltd map of the area. Ryan (1988) notes that heap leach pads were stacked on prepared and lined surfaces that were levelled using waste material. The current method of determining the leach pad volume cannot account for this levelling and potential sterile fill at the base of the pads. However, MUX has subsequently assured SRK that drill holes have specifically targeted areas where waste fill is likely to have been employed for levelling, and such waste was drilled and sampled in conjunction with the leach pads, to account for the perceived inability to define an appropriate base to the pads. SRK considered this to be an acceptable approach that does not pose material risk to the estimate of the Red Dome Leach Pads (SRK, 2014).

Input drill hole data was obtained from a sonic drilling campaign on a nominal 100 x 75 m grid over the leach pad. Assays were taken for Au, Ag and Cu, with Au analysis by Fire assay (AAS finish) and the remaining elements by ICP-MS. Analysis was conducted at SGS Townsville. The use of quality control (QC) samples is not formally documented, though communication with MUX subsequent to initial review of the Red Dome Leach Pad estimate indicates that analytical standards were inserted at the end of each hole, corresponding to an insertion rate of between 1:5 and 1:13. Analysis of the quality control sample data did not reveal any issues which pose risk to the quality and confidence of the Red Dome Leach Pad estimate. Samples were composited to 2 m prior to use in estimation.

Density calculations were made by measuring the weight of recovered samples from the sonic rig, and dividing this value by the calculated theoretical volume of a sample. This method assumes 100% recovery of each drilled interval in a sample. The average density value calculated from six holes was 2.0 t/m^3. Photography of typical core from the sonic rig drilling suggests very high percentage recoveries; thus SRK considered the assumed density from rig sample recovery of 2.0 t/m^3 offers an acceptably reliable measure of density (SRK, 2014).

Despite the lack of documented QA/QC analysis, SRK considered the input data for the Red Dome Leach Pad estimate to be generally acceptable. Acknowledgement that QC samples were employed by inference suggests that their analysis was also conducted, mitigating the perceived risk to the

Red Dome Leach Pad estimate posed by the reliability of the input data.

A block model was created on the leach pad with dimensions 25 x 25 x 5 m (X Y Z). These dimensions were selected predominantly on the sonic drill hole spacing, and the knowledge that the leach pad was stacked in 5 m lifts. SRK considers that for the purposes of leach pad estimation, this block size is appropriate.

Estimation of Au, Ag, Cu and density was undertaken using the ID^2 method. Two search passes with an increasingly relaxed search ellipse were used. A first-pass search was undertaken with an ellipsoid of 125 x 125 x 5 m (X Y Z); with the second being double those dimensions. Since only six out of approximately 24 holes were used for density measurement, where estimation did not assign a density to the block model, the average of 2.0 t/m^3 was assigned.

No further details of estimation were available in the documentation provided to SRK.

Limited validation of the heap leach model is evident. Visual comparison of input drilling data and block grades is presented in the available memo (Pike, 2011). SRK's own brief visual validation of the model shows that the block values moderately correspond to the input sample values. Given the rudimentary nature of the estimate, SRK considers the correlation to be acceptable.

The leach pad model has been reported as classified into Indicated and Inferred, based on section definition (by northing) of available original leach pad designs. Areas within the original leach pad design have been assigned a category of Indicated, while additional dump leach material to the north of the original design has been classified as Inferred. While SRK accepted the paradigm by which this classification is made, it is recommended that based on the a lack of further supporting information any potential classification should be considered no higher than Inferred, and that for the purposes of valuation the leach pad estimate should be considered as an Exploration Target (SRK, 2014).

4.2 Shannon-Zillmanton (SRK 2013 Review)

MUX has a 100% interest in the Shannon-Zillmanton Advanced Exploration area, which has been considered by SRK to have an Exploration Target of 2.5 Mt to 5.1 Mt at 0.46 to 0.86 g/t Au, based on previous exploration work (including drilling) and internal estimates completed by Mr Adrian McArthur.

The Shannon-Zillmanton Gold Project is located about 4 km south-east of the Mungana Gold Project, along a shear in Silurian sedimentary rocks near a contact with the Almaden Monzonite, which is a linear WNW trend interpreted from aerial photography as a faulted boundary. The sedimentary rocks in the area, which consist of marble, banded calc-silicate rock marble and silicified siltstone, have been intruded by a monzonite. A mineralised shear in marble is parallel to the contact.

SRK considered an internal estimate completed by MUX for Shannon-Zillmanton as an Exploration Target for an Advanced Exploration Area. These estimates are predominantly based on historical exploration data and exclude the material from the copper-rich Zillmanton workings.

4.3 Mungana Base Metal Lode

Within the Mungana deposit, a large stratabound base metal lode (Kagara Lode) intersects and is often partially coincident with the gold mineralisation.

KZL had reported an estimate that within this lode there are 44,000 t at 10.5% Zn, 0.1% Pb, 1.9% Cu, 0.9 g/t Au and 124 g/t Ag. No Resource estimate reports have been provided to SRK.

SRK understands that based on the lack of further supporting information any potential classification should considered no higher than Inferred, and that for the purposes of valuation has considered it as an Exploration Target. SRK has applied a plus or minus 35% for tonnes and grades estimated by KZL to determine a reasonable range for this Exploration Target: 28,600 t to 59,400 t at 7.2% to 14.8% Zn, 0.06% to 0.13% Pb, 1.2% to 2.5% Cu, 0.6 to 1 g/t Au, 80 to 167 g/t Ag (SRK, 2014).

4.4 Montevideo

Montevideo is an advanced prospect located within EPM 7672, adjacent to King Vol deposit. It consists of skarns within the Chillagoe Formation. A preliminary estimate was completed manually by Mr Ian Morrison, who was a full-time employee of KZL at this time, using a planometer. The methodology consisted of the direct measurement from cross section and long section plots of drill holes and the geological interpretation by Mr Charlie Georgees, also a former employee of KZL (SRK, 2014). The following methods and constraints were employed:

- Rectangular ore blocks were drawn around the mid-points of drill hole intersections on longitudinal section and the horizontal dimension of the blocks was taken as the mid-point between adjacent intersections or a maximum of 25 m if the intersection was unconstrained or the horizontal distance to the mid-point between adjacent holes was greater than 25 m;
- Down-dip dimensions of ore blocks were measured directly from cross sections and taken as the mid-point between the nearest holes up- and down-dip. In the core of the deposit, this distance was not delimited. The lowermost block was extended to 50 m down-dip of the deepest intersection, drill hole MVD09 on section 3300N. This reflects the greater degree of confidence in the down-dip continuity of the mineralisation;
- The upper most ore blocks were extended up to 10 m above the flat-lying faulted contact between overlying siliciclastic rocks and the underlying limestone which hosts the bulk of the deposit. The rationale behind extending blocks several metres into the overlying stratigraphy is supported by the occurrence of significant high-grade mineralisation that transects the fault and extends up to 15 m into the overlying siliciclastic units – for example, ore-grade mineralisation in hole MVD05, on section 3200N;
- Density measurements for individual assay intervals were available for all core holes except MVD08. A weighted average of these measured densities was applied to each intercept;
- Conservative density values were assigned for all other intersections as follows: 3.1 for intercepts <10% Zn; 3.5 for intercepts of 10–20% Zn; and 4 for intercepts >20% Zn; and
- True widths of intercepts were calculated trigonometrically and weighted averages of grades calculated for each intercept; width and grade for each hole was assigned to each ore block.

SRK has obtained the information for Montevideo from a Technical Report prepared by Mr Ian Morrison, and who 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 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (SRK, 2014).

SRK understands that based on the lack of further supporting information any potential classification should considered no higher than Inferred, and that for the purposes of valuation this estimate should be considered as an Exploration Target. SRK has applied a plus or minus 35% for tonnes and grades estimated by KZL to determine a reasonable range for this Exploration Target: 468,000 t to 972,000 t at 5.0% to 10.4% Zn, 0.13% to 0.27% Pb (SRK, 2014).

4.5 Red Cap Project

SRK understands that Resource Estimates of all deposits in the Red Cap project area, except Victoria, have been re-issued in accordance with the JORC 2012 guidelines. SRK notes Mungana's statement in the ASX announcement (27 April 2015) as below:

The Penzance, Queenslander and Morrisons deposits located in the Red Cap area, part of the Chillagoe Project in North Queensland are re-issued as JORC 2012 compliant Mineral Resource estimates. There are no material differences between the revised 2015 Resource estimations and those completed by Kagara Ltd in 2012 as published in the March and June 2012 quarterly reports.

SRK considers that based on this statement and in the absence of any further documentation for independent review SRK will rely on the previous review conducted in December 2013 (SRK, 2014) as the basis for valuing these projects as there is no material change in the reported tonnes and grade Appendix A.

SRK's review of the Red Cap projects dated December 2013 SRK, (2014) is provided below.

4.5.1 Red Cap Project: Penzance, Victoria and Queenslander-Morrisons (SRK, 2013)

The Red Cap project consists of several polymetallic skarn associated deposits focused along faulted contacts in the Silurian to Devonian age Chillagoe Formation. The geochemical signature of these, and several other deposits in the area, is consistent with a porphyry association. Figure 4-1 illustrates the Red Cap region and its main prospects.

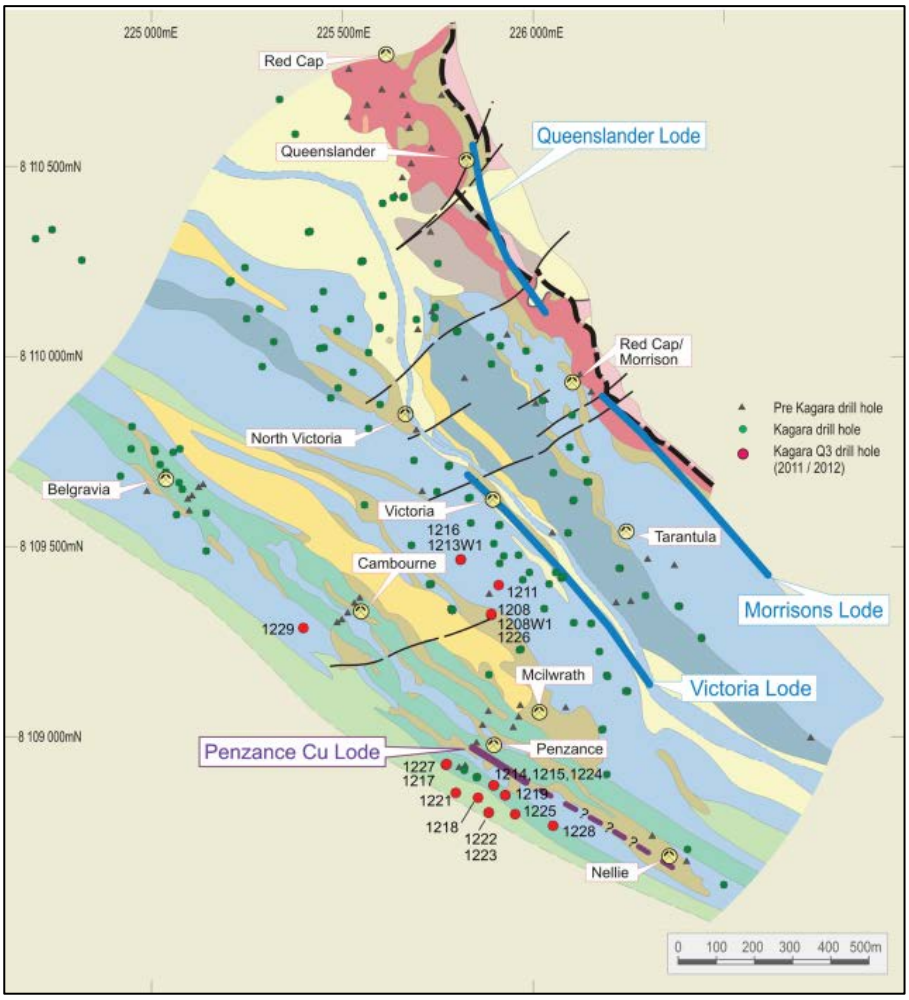


Figure 4-1: Red Cap Project - Penzance, Victoria, Queenslander-Morrisons

Penzance

The Penzance lode is a part of the Red Cap Project, which is located approximately 5 km east of the partially completed Mungana processing plant facility.

The maiden Penzance 2012 Mineral Resource is based on drilling completed by KZL in 2011 and was calculated by the Company's geologists. The block model and grade estimation were completed using Surpac Mining Software™. The interpretation wireframes were used to generate the volume model and ID^2 of 2 m composites for the estimation of grade and density. The Resource has been broken into three main zones: copper, zinc and a minor zinc zone that sits slightly south of the main copper zone.

A maiden JORC 2004 Inferred Resource, as disclosed in press releases on KZL's website, is presented in Table 4-1.

Table 4-1: Penzance – Indicative Exploration Target

Resource	Tonnes	Zn (%)	Pb (%)	Cu (%)	Au (g/t)	Ag (g/t)
Copper	228,000	1.3	0.0	3.2	0.2	58
Polymetallic	85,000	6.2	0.2	0.7	0.1	19

The information above that relates to Mineral Resources is based on information compiled by Mr Andrew Beaton, who is a member of the Australasian Institute of Geoscientists. Mr Beaton was a full-time employee of KZL, and 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

SRK refers to the previous consent provided in the report provided to the ASX, Red Cap Resources re-issued, 27/04/2015. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Due to the lack of supporting documentation, SRK considered this initial estimate as an Exploration Target for the valuation of the Penzance Advanced Exploration Project.

Victoria

At Victoria the mineralisation occurs in steeply dipping intercalated siliciclastic and limestone units of the Silurian Chillagoe Formation which strikes north-westerly in the prospect area. To the north-east of Victoria, the Chillagoe Formation has been thrust over the acid to intermediate Carboniferous Redcap Volcanics along the Redcap Thrust, which dips at about 45° to the south-west and underlies the Victoria mineralisation.

Mineralisation in the Chillagoe Formation occurs nearly always along lithological contacts between limestones and siliciclastics. The Main Victoria Zone is one such zone, developed along the north-eastern flank of a limestone unit at its contact with a siliciclastic package termed the Morrison Conglomerate. It comprises a multi-phase skarn package of pyroxene-garnet-magnetite-pyrrhotite permeated by the economic minerals of mainly sphalerite and chalcopyrite. The system is strongly zoned. Laterally within the Main Victoria Zone, higher grade Zn mineralisation gives way to the north-east to higher grade Cu; vertically from about 250 m below surface, the base metal mineralisation gradually gives way to sphalerite-poor gold and chalcopyrite mineralisation in the pyroxene-garnet skarn. The base of oxidation is quite shallow (<30 m) at Victoria, deepening to about 50 m near the centre of the Resource.

In the deposit area, quartz-molybdenite veinlets carrying occasional traces of chalcopyrite, pyrrhotite, sphalerite, and pyrite are common in both the Chillagoe Formation and the Redcap Volcanics and are not restricted to areas of skarn. Their economic significance is not clear at this stage.

The limestone unit hosting the Victoria mineralisation varies in thickness from less than 1 m to over

80 m, with an average thickness of 30–40 m in the central part of Victoria. At its south-western contact with a siltstone unit, there is a pyroxene-garnet skarn zone which hosts a lens of chalcopyrite and sphalerite mineralisation. For the present purposes, this mineralisation has been termed "Victoria South". Magnetite and pyrrhotite are far less well developed in this zone.

The Victoria prospect is drilled at 100 m spacing between 5250E and 6100E (Red Dome Mine Corridor Grid). The estimate includes data from all holes drilled by KZL at Victoria to date (holes 896–906 and 947–978) and specifically excludes pre-KZL drill holes. Mineralisation remains open along strike to the east and down dip. There are several other contacts in the area along which some mineralisation has been intersected. However, the drilling of these prospects is too widely spaced to adequately quantify the mineralisation.

An initial estimate was made using the "cross sectional areas" method with a 50 m sectional spacing. Each intersection was weighted according to area on the cross section and projected at constant area to halfway between sections. On intervals where specific gravity (SG) determinations were available (air pycnometer readings on assay samples at the laboratory), these were converted to bulk density (96.2% of SG), which was then used for the tonnage conversion. On intervals where density data was not available, a nominal bulk density figure of 3.6 was used for fresh and 3.2 for oxidised intervals respectively. Derivation of the nominal bulk density figures was based on a weighted average of mineralised (>= 0.5% ZnEq) intervals where data exists (N=168 readings).

Intersections were calculated using a notional cut-off of 0.5% CuEq or 5% ZnEq or 0.5 g/t AuEq. The following methodology was applied:

- Tabulation of mineralised intercepts: A table was drawn of all mineralised intervals above the cut-off grades;
- Holes plotted on 50 m cross sections, geological interpretation, and polygons drawn around each intersection: Intersections were projected halfway between drill holes or at constant width as dictated by geology or for a nominal 40–50 m where open up-dip or down-dip. Where no up-dip or down-dip mineralisation was encountered in adjoining holes, mineralisation outlines were drawn to a point source halfway between holes;
- Cross sectional area of each polygon calculated: Using the "update column" facility in MapInfo^{TM} software;
- Conversion of areas to tonnes: Using the bulk density factor and by projecting each polygon at constant area halfway to the adjacent section. Where an intersection remains open along strike, the polygon was projected along strike at constant area for half the section spacing; and
- Average grades calculated: Average Grade = Sum of (Grade X Tonnes)/Total Tonnes.

SRK has obtained the information for Victoria from a Technical Report prepared by Mr Charlie Georgees, who was a full-time employee of KZL, and 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

For valuation purposes, SRK has considered this initial estimate as an Exploration Target for the Victoria Advanced Exploration Project. SRK has applied a plus or minus 35% for tonnes and grades estimated by KZL to determine a reasonable range for this Exploration Target: 2.2 Mt to 4.6 Mt tonnes at 3.3% to 6.9% Zn, 0.6% to 1.3% Cu.

Queenslander-Morrisons

At Queenslander-Morrisons lodes, the mineralisation is hosted in magnetite-garnet-pyroxene-pyrrhotite skarn (Figure 4-2).

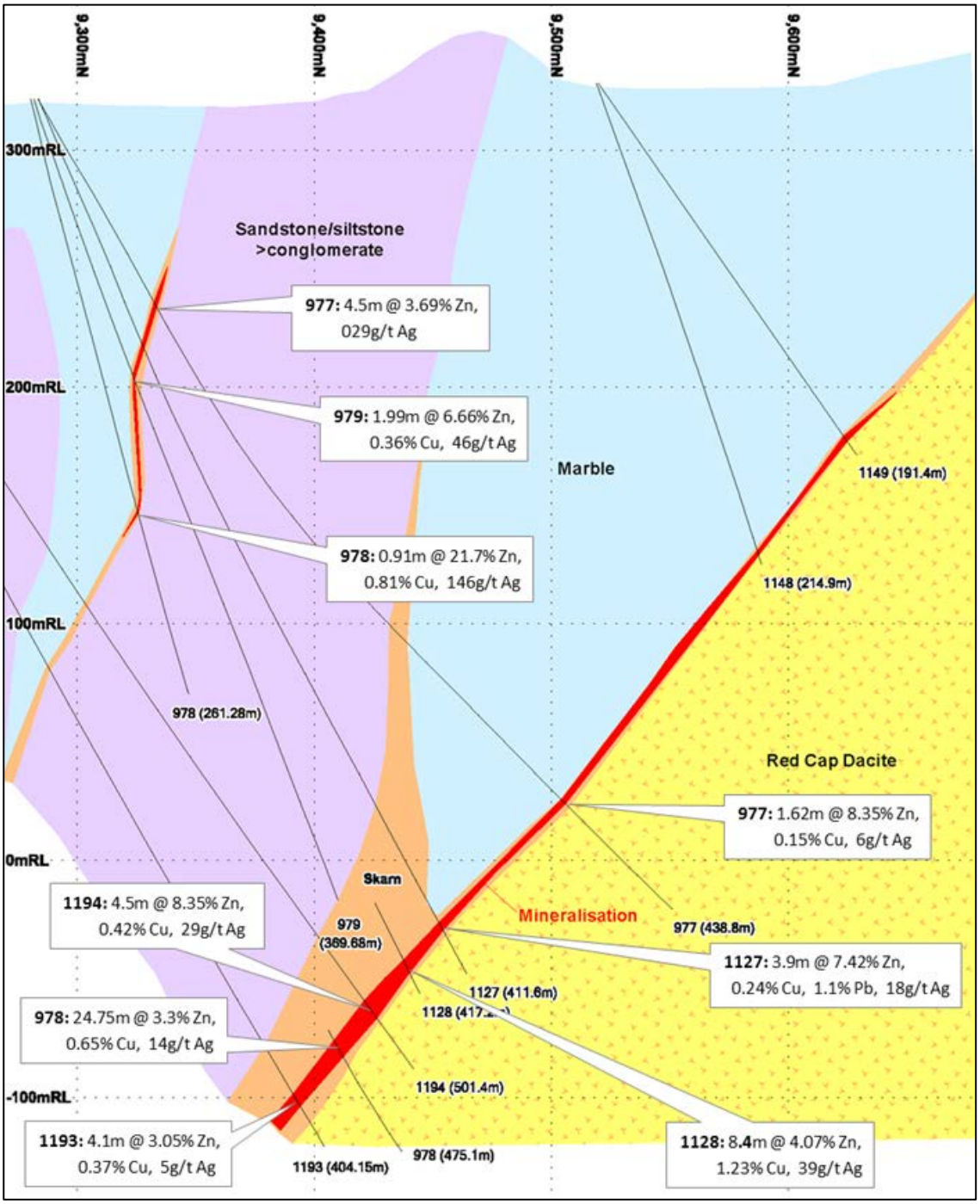


Figure 4-2: Queenslander-Morrisons typical cross section

The Queenslander-Morrisons Mineral Resource estimate is based on the drilling completed by KZL in 2008 and 2011. The geological interpretation was carried out by KZL geologists and the block model and grade estimation were completed using Surpac Mining Software™. The interpretation wireframes were used to generate the volume model and ordinary kriging of 2 m composites for the estimation of grade and density. According to KZL's press releases on the Company's website, this Resource has been classified as Inferred Resource Category as defined by the JORC Code 2004 (Table 4-2).

Table 4-2: Queenslander-Morrison – Indicative Exploration Target

Deposit	Category	Type	Tonnes	Zn (%)	Pb (%)	Cu (%)	Au (g/t)	Ag (g/t)	Competent Person
Queenslander	Inferred	Fresh	1,570,000	4.4	0.2	0.5	0.0	12	Andrew Beaton
Morrisons	Inferred	Fresh	1,930,000	5.4	0.3	0.6	0.1	21	Andrew Beaton
Total			**3,500,000**	**5.0**	**0.3**	**0.6**	**0.1**	**17**	

The information above that relates to Mineral Resources is based on information compiled by Mr Andrew Beaton, who is a member of the Australasian Institute of Geoscientists. Mr Beaton was a full-time employee of KZL, and 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

SRK refers to the previous consent provided in the report provided to the ASX, Red Cap Resources re-issued, 27/04/2015. SRK confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement, and in the case of estimates of mineral Resource or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

SRK has completed a high level review of the preliminary Resource estimates completed at Queenslander-Morrisons by KZL geologists and has not identified any fatal flaws. However, SRK has classified the project as an Advanced Exploration Project. SRK believes this project would not be developed as a standalone project, but in conjunction with the other Red Cap exploration projects.

4.6 MUX Exploration Areas

4.6.1 Chillagoe Exploration Projects

The exploration ground held by MUX in the Chillagoe area has been reviewed by SRK for the purposes of this valuation. The previous review conducted in December 2013 has been used as the basis of this updated review; however, there have been a number of material changes to the exploration areas since SRK's previous review. The Exploration Licences held by MUX as of May 2015 are outlined in and in general cover the same area as the previous review, subject to relinquishment and/or renewal, resulting in a smaller, more focused area.

Table 4-3: Chillagoe Exploration Licences

Tenement	Project	Status	Sub-blocks	Area (ha)	Area (km²)	Grant date	Expiry date
EPM 12902	Arkaroola	Granted	5	1634.05	16.34	28/03/2006	27/03/2017
EPM 15458	Red Dome	Granted	75	24560.77	245.61	04/07/2007	03/07/2017
EPM 15459	Red Dome Extended	Granted	8	2618.75	26.19	02/05/2007	01/05/2020
EPM 18530	Red Dome West	Granted	2	654.95	6.55	20/09/2011	19/09/2016
EPM 19064	Fluorspar	Granted	8	2617.90	26.18	28/06/2012	27/06/2017
EPM 7672	Walsh River	Granted	20	6558.91	65.59	22/01/1991	21/01/2018
EPM 14104	Walsh River Extended	Granted	5	1640.11	16.40	26/08/2004	25/08/2017
EPM 14108	Walsh River Extended 2	Granted	20	6559.30	65.59	26/08/2004	25/08/2017
EPM 19196	Dargalong	Granted	35	11477.02	114.77	13/12/2012	12/12/2017

December 2013 Review of the Chillagoe Area (SRK, 2014)

The Chillagoe district in Northern Queensland has a mining history dating back to the 1880s when it opened as a significant centre of production for copper, lead and silver. The district's potential to become a significant gold camp was not recognised until the discovery of the Red Dome deposit in the late 1970s and the Mungana deposit in the in the 1980s. Red Dome was developed as an open cut mine and by the end of operation in 1998, had produced close to 1 million ounces (Moz) of gold. MUX exploration assets described as the Chillagoe Exploration Project consist of all the Company's North Queensland assets except for Mungana and Red Dome.

The Palmerville Fault marks the western margin of the Hodgkinson Province and separates the Precambrian Dargalong Metamorphics in the west from the Palaeozoic aged rocks in the east. Along the eastern side of the Palmerville Fault is a sliver of Ordovician Mulgrave Formation, and an eastwardly younging sequence including the Chillagoe and Hodgkinson formations.

The Chillagoe Formation hosts the majority of mineralisation in this region and it outcrops along a 5–10 km wide north-west striking belt which extends for 150 km from Mt Garnet in the south-east to 70 km north-west of Chillagoe where the belt and bounding Palmerville Fault, changes orientation to a more northerly strike and extends for a further 120 km.

The formation comprises units of limestone, sandstone, siltstone, chert, basalt and conglomerate with a cumulative thickness of approximately 1 km; however, extensive thrust faulting during the Late Devonian to Mid Carboniferous resulted in significant structural thickening of the formation.

At least 12 thrust-induced stratigraphic repetitions have been identified in the Mungana to Red Cap area. The steeply-dipping thrust faults trend north-westerly, sub-parallel to the stratigraphy and the Palmerville Fault.

Igneous activity in the Late Carboniferous to Early Permian resulted in the widespread intrusion of granitic rocks and extrusion of felsic volcanic rocks and the localised emplacement of high level porphyry stocks in the Chillagoe region. Mineralisation in the Chillagoe region is interpreted to be related to this Late Carboniferous to Early Permian intrusive activity.

Multiple phases of intrusive activity in the Chillagoe district tend to be associated with Au, Cu, Zn, Pb, Ag, tin (Sn), molybdenum (Mo), tungsten (W) and bismuth (Bi) mineralisation. The Mungana and Red Dome gold deposits are associated with a particular suite of intrusions of Late Carboniferous age. The surrounding host rocks comprise marbles and sandstones of the Silurian Chillagoe Formation and skarns are frequently developed in reaction zones at the contact points between these different rock types. Mineralisation also frequently develops in these skarns, and within stockwork vein systems within and around the porphyries.

The combination of favourable host rocks in the Chillagoe Formation along with structures and extensive Late Carboniferous magmatism has led to a variety of mineralisation styles:

- Distal skarn deposits, such as King Vol zinc-rich skarn deposit;
- Proximal base metal-Au skarns such as Mungana and Victoria deposits;
- Porphyry-related Au-Cu-Mo ± Zn-Pb e.g. Red Dome and Mungana in the Chillagoe Formation, the Cardross Cu-Au deposits and the Tartana copper deposit hosted by Hodgkinson sediments immediately east of King Vol deposit;
- Mesothermal vein-style Sn, W, base metals and granite-hosted Au-quartz mineralisation e.g. Moreag; and
- Epithermal gold mineralisation, for example, the Fluorspar group of epithermal quartz-kaolinite veins.

Based on the prospective geological setting described above, MUX believe there is the potential for

the discovery of additional Au and base metal systems in the Chillagoe district. Exploration is now particularly focused along the "Mine Corridor", a significant structural domain to the east of the Palmerville Fault, which has numerous historical workings and geochemical anomalies. In addition to the porphyry-related systems at Mungana and Red Dome, other mineralisation styles in the district include granite-hosted gold-quartz mineralisation at Moreag, epithermal-style Au mineralisation at Fluorspar, and mesothermal vein systems in the Dargalong metamorphic belt.

MUX retained Mr John E Nethery (FAIG, FAusIMM, FSEG, MGSA, CP(Geo)) to prioritise the Chillagoe potential targets based on the assessment of the 2-year exploration programme undertaken by Normandy Exploration Ltd, commissioned by Niugini Mining Aust Pty Ltd. This study indicated that the area is prospective for gold as several targets were identified, at various stages of testing.

In addition to the historical data and prospectivity study, MUX has utilised the services of geophysical consultant, Matt Cooper of Resource Potentials, to reprocess open file magnetic and radiometric data, and evaluate anomalies in relation to a digital terrane model. The Company has also utilised GIS products released by Geoscience Australia and the Geological Survey of Queensland – in particular, mineral occurrence datasets, geological and structural mapping.

This work has highlighted an area of magnetic anomalism within the Silurian-Devonian Hodgkinson Formation metasedimentary rocks. These anomalies include subtle but discrete magnetic responses proximal to the "Bellevue" and "OK No 21" Cu occurrences. Such magnetic contrasts are known to mark skarn associations in mineralised intrusive related Au systems within MUX's Chillagoe Project Area to the south. The magnetic pattern implies a potentially more complex mineral system, which might include blind targets as part of a telescoped system below the reported epithermal mineral occurrences. There are also a number of mineral occurrences associated with Chillagoe Formation strata, where a complex magnetic pattern is evident in the lower-lying areas associated with the mineralised trend.

The digital terrain model also illustrates a number of discrete "highs", and given the nature of the documented mineral occurrences, such highs may potentially mark areas of silicification related to hydrothermal alteration.

MUX conducted a high level review of QDEX (Queensland Digital Exploration Reports System) open file reports on historical tenure covering the application area. This indicated that the focus of previous exploration, particularly in recent times, has largely involved reconnaissance geochemical surveys, mapping, remote sensing interpretation and desktop targeting studies. Whilst some explorers consider the mineral occurrences in the district to have epithermal characteristics, others have conducted their targeting on an orogenic gold model analogous to Central Victoria. Past geochemical coverage is of value and has identified some low level anomalism, but MUX believes there is scope to improve coverage in drainage patterns more localised to the anomalies of interest, and supplement stream data with local soil coverage due to the high-energy nature of stream systems.

4.6.2 Charters Towers Exploration Projects

SRK has not previously reviewed exploration ground held by MUX in the Charters Towers area (Table 4-4). Due to the time constraints of this review and valuation, SRK has relied upon the desktop review of the Charters Towers exploration areas provided by MUX as the basis of the review and in valuing the area. The full report has been provided as Appendix B.

SRK has performed a basic verification check of the potential of the exploration areas spatially using ArcGIS. This was accomplished by reviewing the known mineral occurrences in the area and cross-checking them against the historical exploration results summarised by MUX. The known mineral occurrences layers were downloaded from the Queensland 'MinesOnlineMaps' system.

The occurrences were also checked for proximity to or located within MUX's tenure.

SRK took particular note of the historic assay results identified by MUX; these values include downhole assays, bulk samples and rock chip samples. Whilst SRK has not validated these reported results or the original exploration reports, it is considered that they appear reasonable based on SRK's knowledge of the area and for early stage exploration assessment work, for exploration projects as defined by the VALMIN Code

Table 4-4: Charters Towers Exploration Licences

Tenement	Project	Status	Sub-blocks	Area (ha)	Area (km²)	Grant date	Expiry date
EPM25132	Liontown 1	Granted	100	32029.74397	320.2974397	25/11/2013	24/11/2018
EPM25133	Liontown 2	Granted	87	27891.82108	278.9182108	28/11/2013	27/11/2018
EPM25134	Liontown 4	Granted	33	10588.40209	105.8840209	20/11/2013	19/11/2018
EPM25135	Liontown 3	Granted	79	25358.17853	253.5817853	20/11/2013	19/11/2018
EPM25148	Liontown 5	Granted	34	10908.45573	109.0845573	25/11/2013	24/11/2018
EPM25270	Liontown 6	Granted	3	962.4993555	9.624993555	08/04/2014	07/11/2019
EPM25271	Liontown 7	Granted	46	14749.23863	147.4923863	08/04/2014	07/04/2019
EPM25437	Liontown 8	Granted	100	32076.58894	320.7658894	04/07/2014	03/07/2019
EPM25680	Liontown 9	Granted	29	9306.710955	93.06710955	02/04/2015	01/04/2020

Charters Towers Report – Desktop review conducted by MUX

A subset of the key resources used by SRK to review the Charters Towers Exploration Areas is presented in below. The full report is presented in Appendix B.

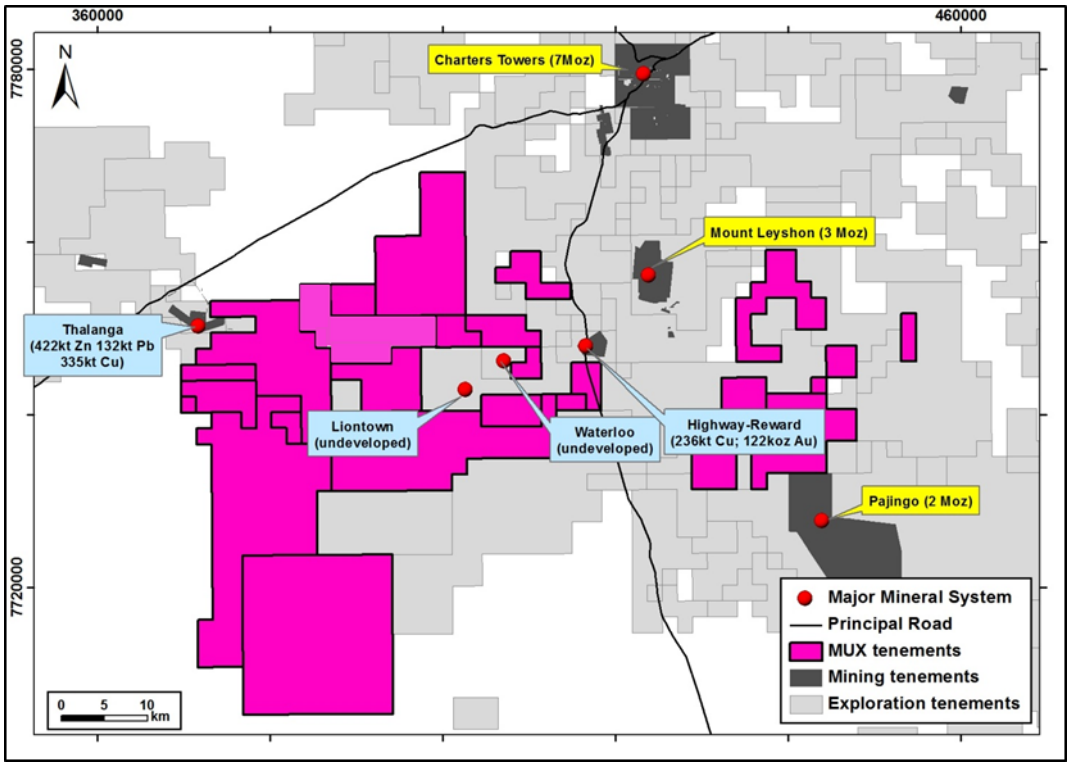


Figure 4-3: District Endowment

Major centres of gold production are labelled in yellow, and major VMS deposits labelled in blue. The tenement position controlled by MUX is shown in purple.

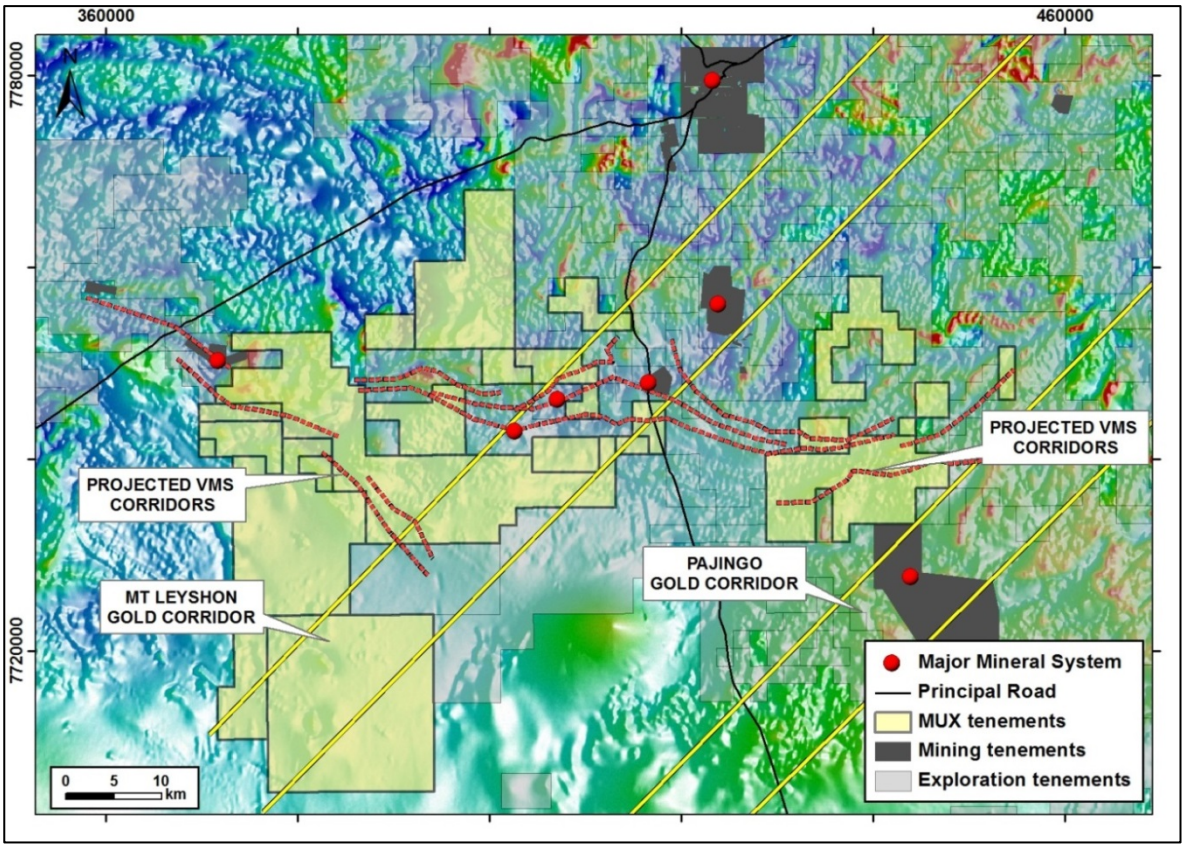


Figure 4-4: Metallogenic corridors, with interpreted VMS corridors shown in dashed red and NE-trending gold corridors shown in yellow outline

MUX examples of geochemical data coverage are illustrated below, showing some of the metal anomalism identified in previous exploration. The compilations by MUX are based largely on data obtained from the Geological Survey of Queensland's data digital releases over the Charters Towers area.

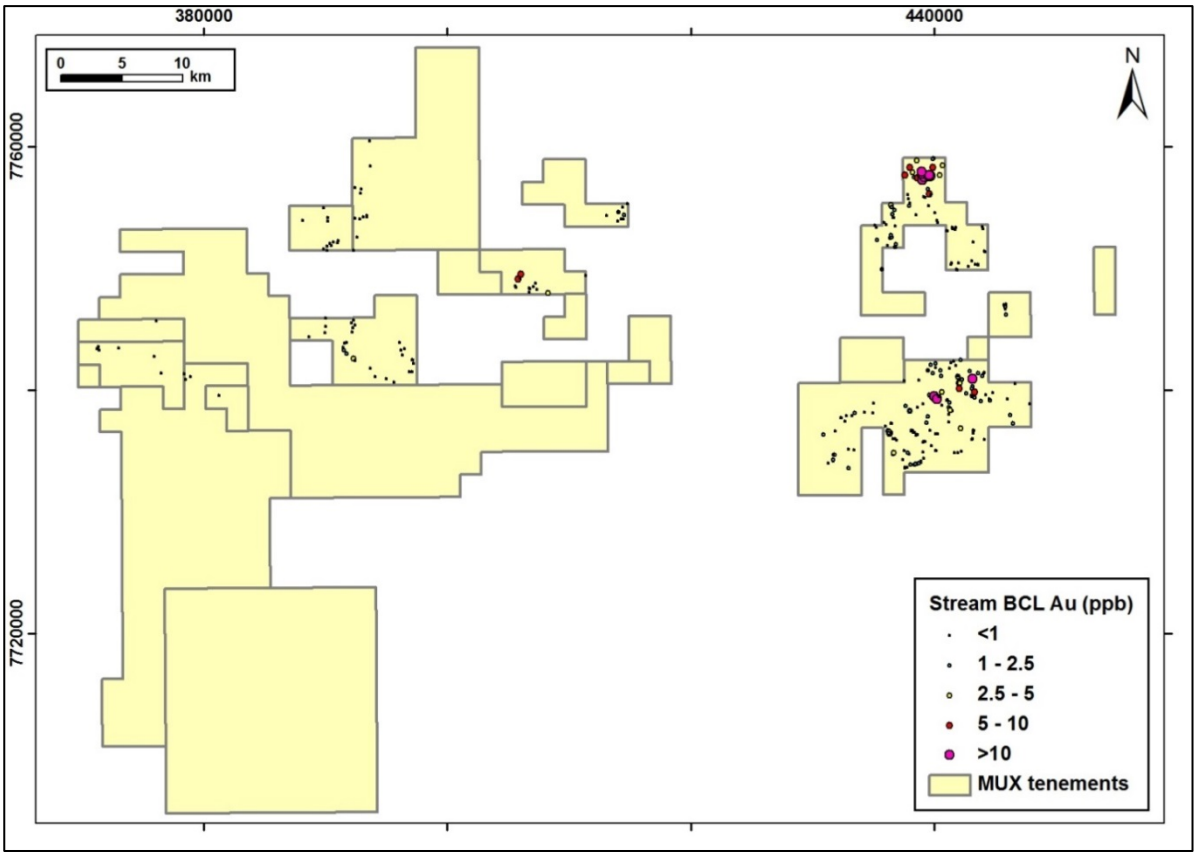


Figure 4-5: Sample gold data from bulk cyanide leach analyses over MUX tenure

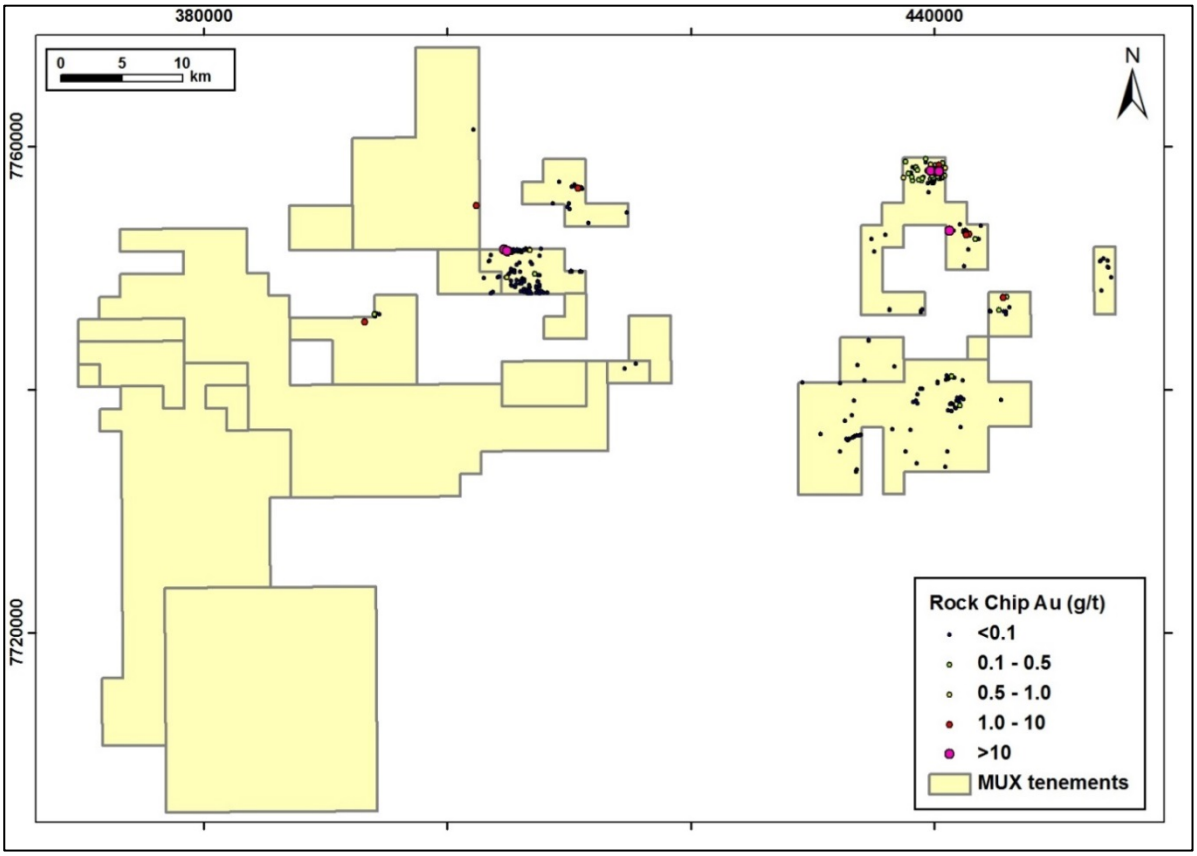


Figure 4-6: Rock chip sample coverage over MUX tenure, showing anomalous gold values

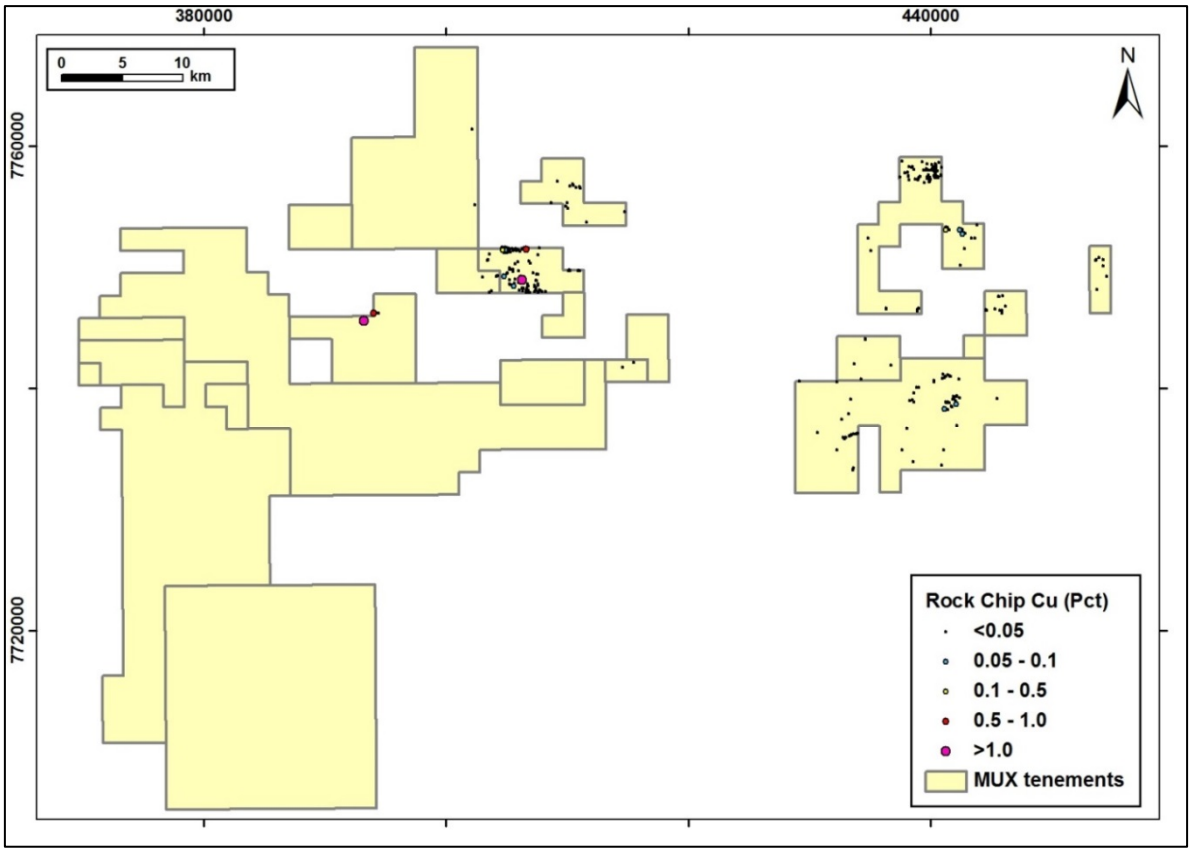


Figure 4-7: Rock chip sample coverage over MUX tenure, showing anomalous copper values

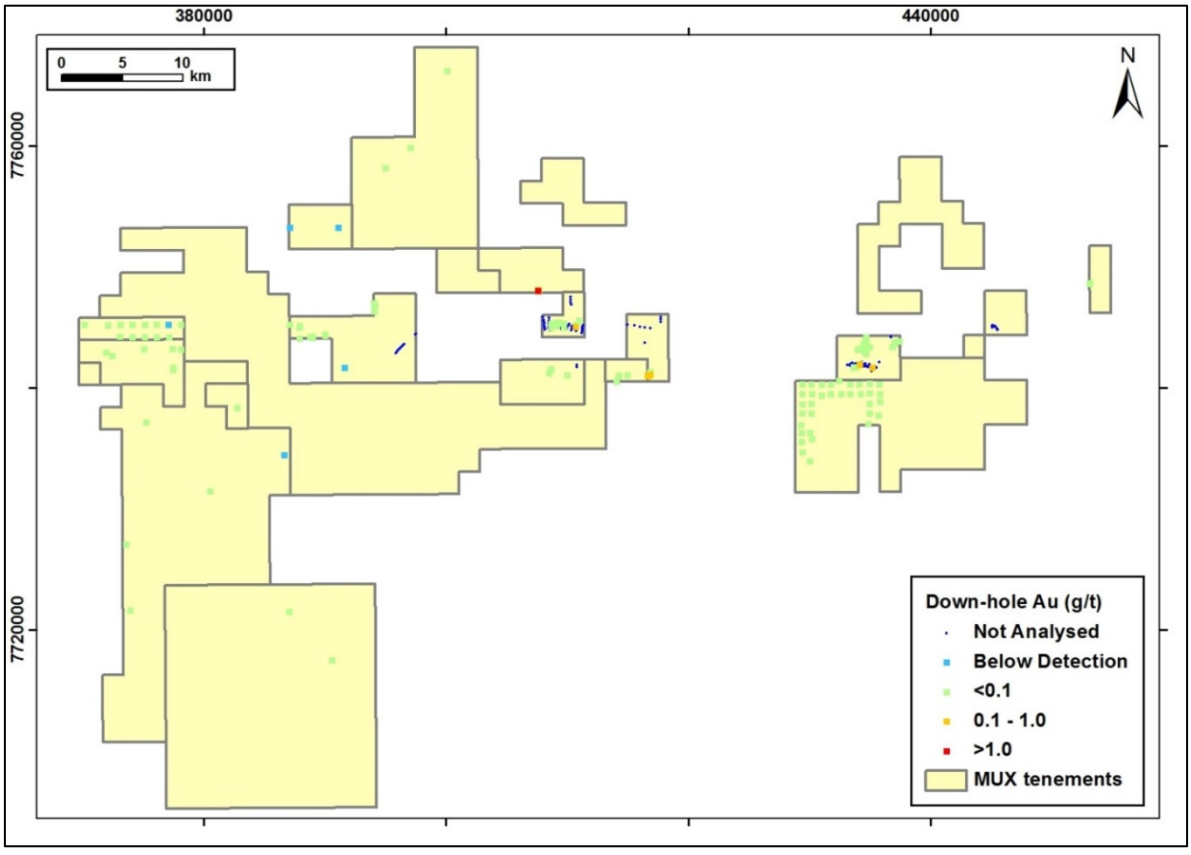


Figure 4-8: Downhole gold assay data, which assay values plotted along the drill hole trace in plan view

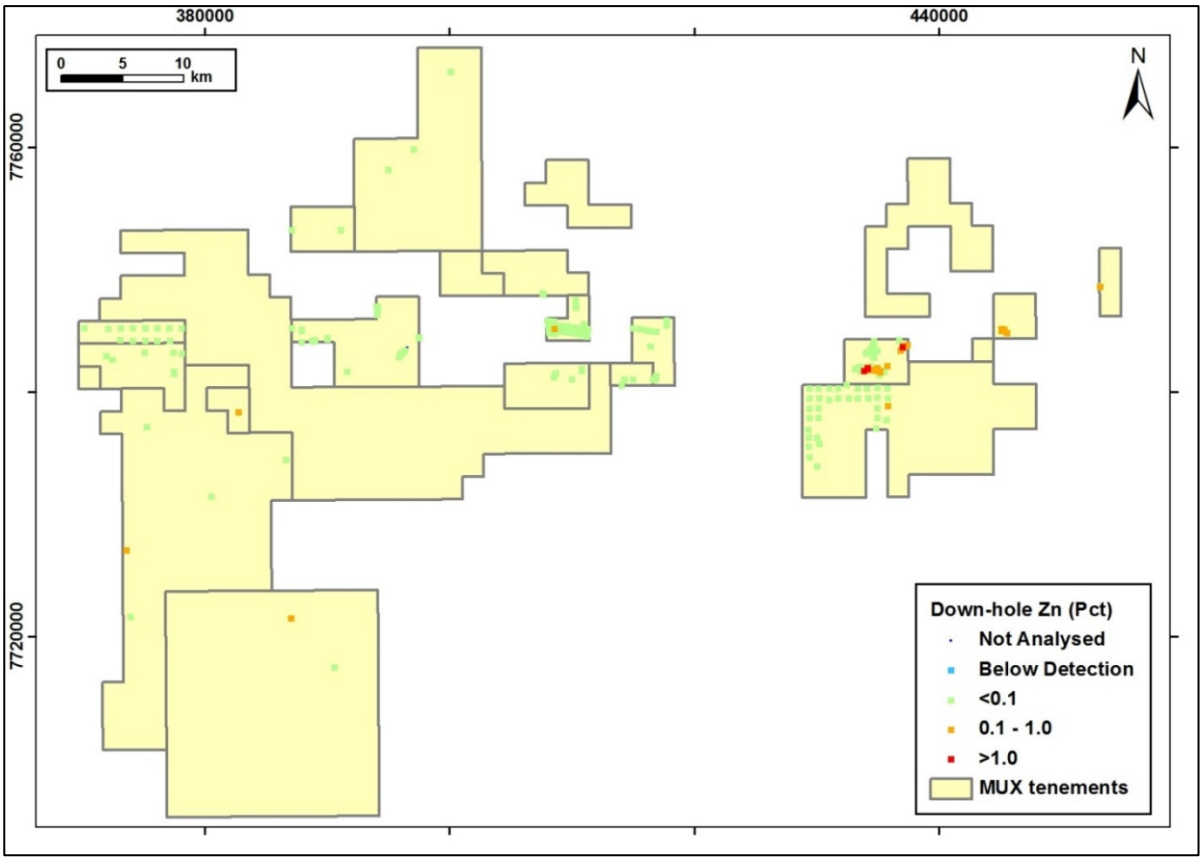


Figure 4-9: Downhole zinc assay data, which assay values plotted along the drill hole trace in plan view

5 Valuation

While the VALMIN Code 2005 states that decisions as to which valuation methodology is used are the responsibility of the Expert or Specialist, where possible, SRK considers a number of methods.

The aim of this approach is to compare the results achieved using different methods to select a preferred value within a valuation range. This reflects the uncertainty in the data and interaction of the various assumptions inherent in the valuation.

An overview of a number of methods traditionally used to value exploration properties includes:

- Multiples of Exploration Expenditure (MEE);
- Joint Venture Terms Method (expenditure-based);
- Geoscience Ratings Methods (e.g. Kilburn – area-based);
- Comparable Market Value Method (real estate based);
- Metal Transaction Ratio (MTR) Analysis (ratio of the transaction value to the gross dollar metal content, expressed as a percentage - real estate based);
- Yardstick/Rule of Thumb Method (e.g. A$/Resource or production unit, % of an in situ value); and
- In addition, SRK uses the geological risk method to value early stage exploration assets.

SRK has relied on the comparable market value method to derive a value as there was considerable market activity in the sector for projects that did not contain Mineral Resources at the time of the transaction was compiled.

5.1 Valuation Approaches

The three generally accepted Valuation approaches, as listed and defined in the CIMVAL Code (2003) are:

1 Income Approach;

2 Market Approach; and

3 Cost Approach.

The *Income Approach* is based on the principle of anticipation of benefits and includes all methods that are based on the income or cash flow generation potential of the Mineral Property (CIMVAL, 2003). Valuation methods that follow this approach include Discounted Cash Flow (DCF) modelling, Monte Carlo Analysis, Option Pricing and Probabilistic methods.

The *Market Approach* is based primarily on the principle of substitution and is also called the Sales Comparison Approach. The Mineral Property being valued is compared with the transaction value of similar Mineral Properties, transacted in an open market (CIMVAL, 2003). Methods include comparable transactions, MTR and option or farm-in agreement terms analysis.

The *Cost Approach* is based on the principle of contribution to value (CIMVAL, 2003). Methods include the appraised value method and multiples of exploration expenditure, where expenditures are analysed for their contribution to the exploration potential of the Mineral Property.

The applicability of the various valuation approaches and methods vary depending on the stage of exploration or development of the property, and hence the amount and quality of the information available on the mineral potential of the property. Table 5-1 presents CIMVAL's view on the applicability of the various valuation approaches for the valuation of mineral properties at the various stages of exploration and development.

Table 5-1: Suggested valuation approaches for different types of Mineral Properties (CIMVAL)

Valuation approach	Exploration properties	Mineral Resource properties	Development properties	Production properties
Income	No	In some cases	Yes	Yes
Market	Yes	Yes	Yes	Yes
Cost	Yes	In some cases	No	No

Source: (CIMVAL, 2003).

The Market approach to valuation is generally accepted as the most suitable approach for valuation of a Mineral Resource Property or a Pre-Development Project.

The use of income-based methods, such as Discounted Cash Flow (DCF) modelling, is not generally accepted in situations where Mineral Reserves, supported by suitably detailed mining studies, have not been declared. As Mineral Reserves have not currently been declared for any of the projects subject to this valuation, income-based methods of valuation are not considered suitable.

The use of cost-based methods, such as considering suitable multiples of exploration expenditure is best suited to exploration properties, before Mineral Resources are reliably estimated. As current Mineral Resources have been declared for the Pre-Development and Advanced Exploration projects, cost-based methods of valuation are considered less suitable than market-based methods of valuation for these properties.

SRK favours the use of the Comparable Transaction method of valuation, a market-based approach, for the valuation of MUX Pre-Development and Advanced Exploration projects. An alternative method would be the Yardstick (Rule of Thumb) and the MTR (Roscoe, 2012), which are also a market-based approach.

In general these methods are accepted analytical valuation approaches that are in common use for determining Fair Market Value (defined below) of mineral assets, using market derived data.

The **"Fair Market Value"** is defined in the VALMIN Code 2005 as, in respect of a mineral asset, the amount of money (or the cash equivalent of some other consideration) determined by the relevant expert in accordance with the provisions of the VALMIN Code 2005 for which the mineral asset should change hands on the relevant date in an open and unrestricted market between a willing buyer and a willing seller in an 'arm's length' transaction, with each party acting, knowledgeably, prudently and without compulsion. The Fair Market Value is usually comprised of two components, the underlying Technical Value (defined below) of the mineral asset, and a premium or discount related to market, strategic or other considerations.

The **"Technical Value"** is defined in the VALMIN Code 2005 as an assessment of a mineral asset's future net economic benefit at the valuation date under a set of assumptions deemed most appropriate by a relevant expert or specialist, excluding any premium or discount to account for such factors as market or strategic considerations.

Valuation methods are, in general, subsets of valuation approaches and for example the Income Based Approach comprises several methods. Furthermore, some methods can be considered to be primary methods for valuation while others are secondary methods or rules of thumb considered suitable only to benchmark valuations completed using primary methods.

In summary, however, the various recognised valuation methods are designed to provide an estimate of the mineral asset or property value in each of the various categories of development. In some instances, a particular mineral asset or property or project may comprise assets which logically fall under more than one of the previously discussed development categories.

5.2 Market and Transactions

5.2.1 Gold

The variation of the gold price in Australian dollars, as well as the Australian dollar to US dollar exchange rate for the period January 2010 to April 2015 is shown in Figure 5-1.

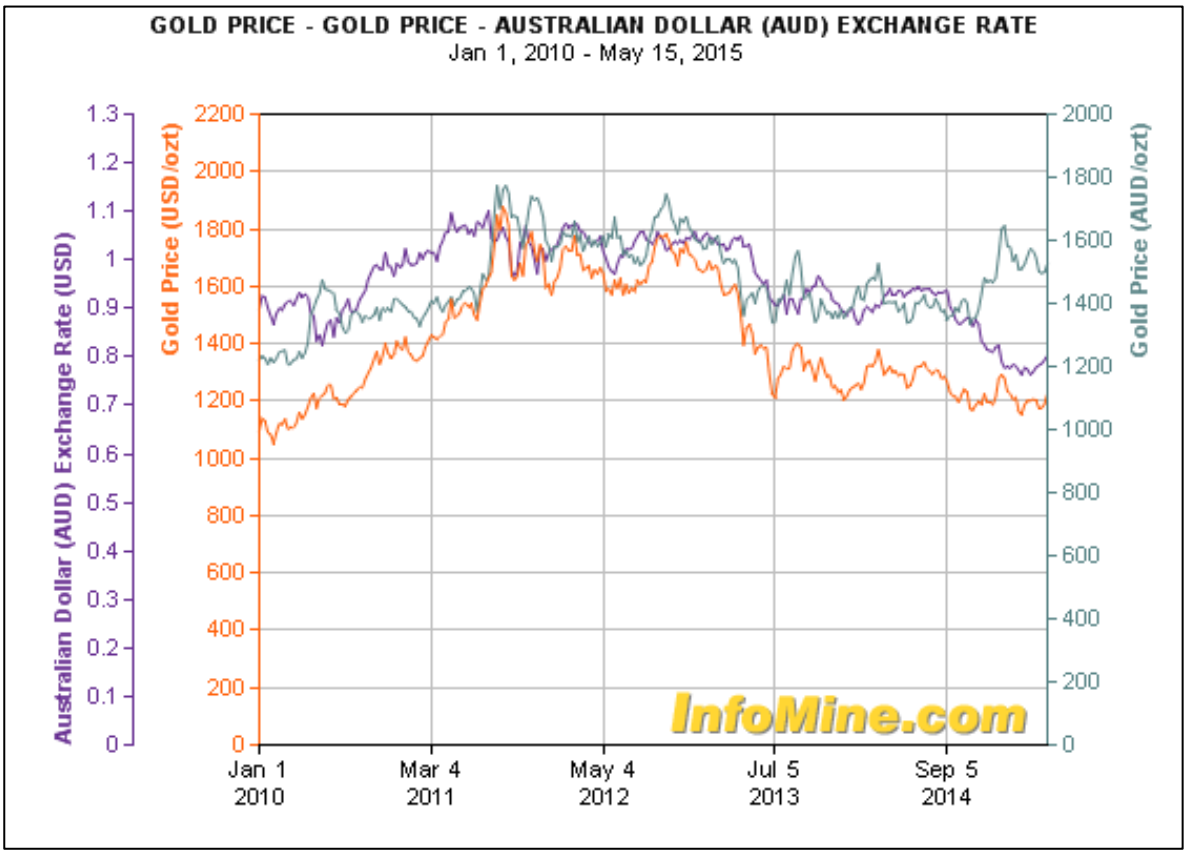


Figure 5-1: Recent Gold price in Australian (A) and US (US) dollars

Source: InfoMine

The gold price gradually increased from around A$1,200/oz in early 2010, reaching just under A$1,500/oz by mid-2011 before again spiking to approximately A$1,800/oz in late 2011. For most of 2012, the gold price varied around A$1,600/oz, dropping to around A$1,500/oz in mid-2012 and rebounding above A$1,700 in the third quarter of 2012, before again returning to the A$1,600/oz level. In 2013 and 2014 gold prices have fluctuated around A$1,400/oz, before climbing to around A$1,500/oz in late 2014 and early 2015 as a result of the weakening A$.

In general, the A$ was depressed when compared to the US$ during gold price spikes and more buoyant when the gold price was depressed. The gold price when evaluated in US$ has dropped much more significantly from mid-2013 than when evaluated in A$ due to a lower exchange rate.

5.2.2 Base Metals

Graphs depicting the variation in the zinc and copper prices over the period January 2010 to April 2015 are provided in Figure 5-2, Figure 5-3 and Figure 5-4. Whilst the price of both copper and zinc rise and fall in unison, in general the copper price has decreased relative to the zinc price during this period.

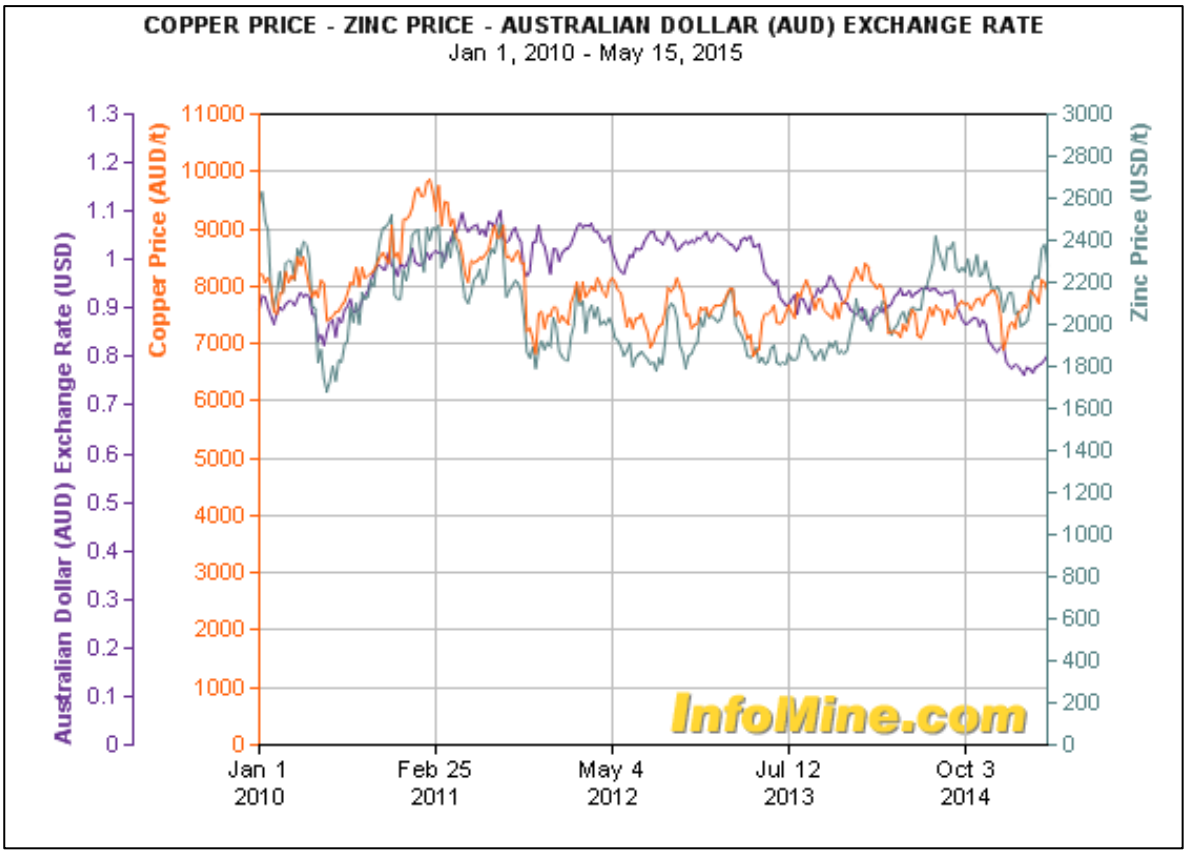


Figure 5-2: Comparison of zinc and copper prices (A$) - January 2010 to April 2015

Source: InfoMine

Figure 5-3: Zinc price - January 2010 to April 2015

Source: InfoMine

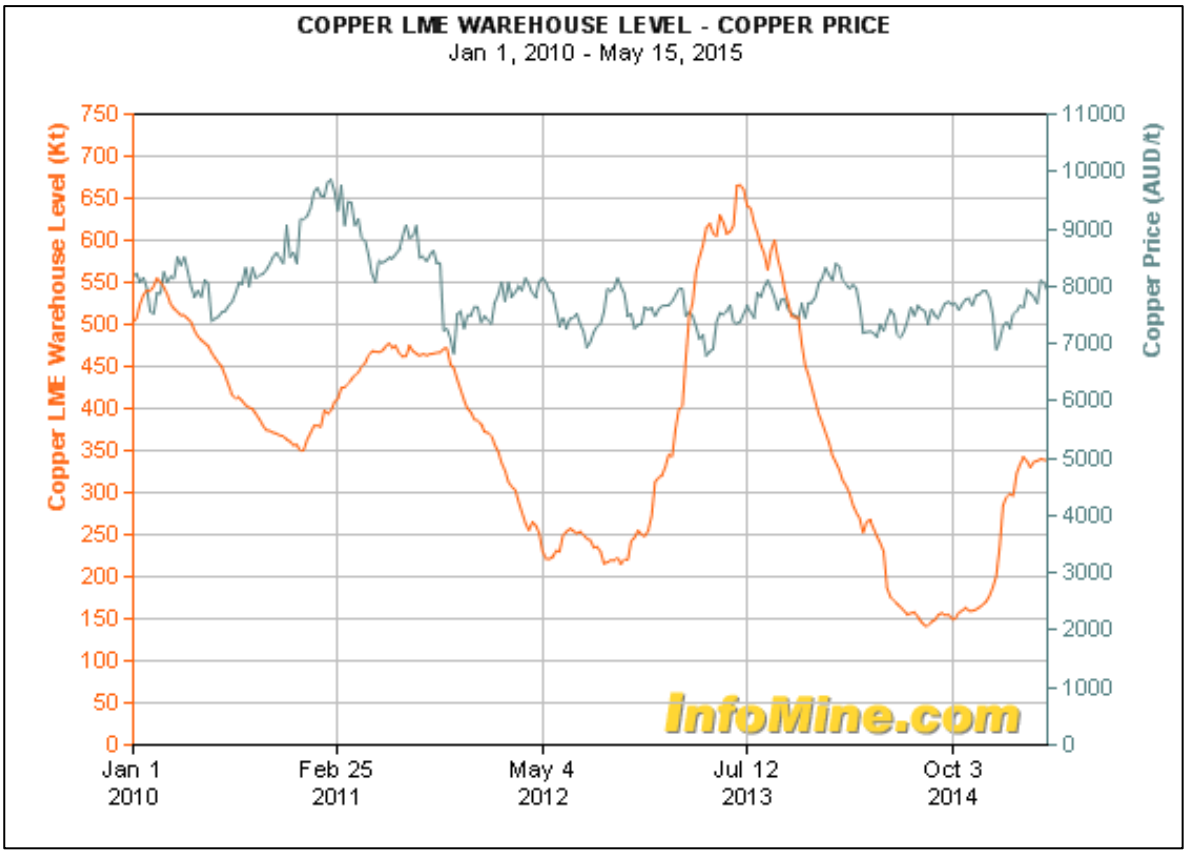


Figure 5-4: Copper price - January 2010 to April 2015

Source: InfoMine

5.2.3 Gold Comparable Market Transactions

In assessing a valuation factor for gold resource ounces, SRK analysed 17 transactions of gold properties in Eastern Australia (Northern Territory, Queensland, New South Wales, Victoria and South Australia) that occurred after January 2010, with 14 of these transactions considered to be suitable comparatives for the valuation of MUX's gold Mineral Resources (Table 5-3). The projects considered ranged from Advanced Exploration to Producing projects and all included declared Resources classified as Inferred or higher (Figure 5-5 to Figure 5-7).

The transactions were analysed in terms of the implied purchase price in A$ and the declared resource base at the time of the transaction. All values and factors quoted are in A$. Consideration paid in shares was considered at a 10% discount to cash consideration and contingent payments were risk weighted. Share prices at the time of the announcement of the transactions were considered where shares formed a part of the consideration and the timing of payments, as set out in the initial agreements, was also taken into account.

The gold price at the time of the transaction was considered, and the implied A$/oz transaction price was normalised to the average March 2015 gold price of A$1,524.73/oz.

Three of the original 17 transactions were eliminated (highlighted blue) as they were not considered suitable comparatives for the MUX assets, due to the development stage or strategic considerations such as grade, size of resource or the presence of alluvial gold.

When considering the 14 remaining transactions, the implied price in A$ per ounce Au ranges from A$2.74 to A$31.31, with a median of A$9.71 and a weighted average of A$9.56. When normalised to the March 2015 gold price of A$1,524.73/oz, this changes to a low of A$3.00 to a high of A$34.31, with a median of A$10.12 and a weighted average of A$12.50.

However, when considering these remaining transactions by development status, there are seven comparable transactions (highlighted green). The implied price in A$ per ounce Au ranges from A$6.03 to A$82.42, with a median of A$10.31 and a weighted average of A$18.00 (Table 5-2). When normalised to the March 2015 gold price of A$1,524.73/oz, this changes to a low of A$5.84 to a high of A$84.07, with a median of A$11.58 and a weighted average of A$19.42. SRK considers the derived value of A$19.42 per ounce Au to be a reasonable factor on which to base the valuation of MUX's Pre-Development Projects.

Table 5-2: Analysis of Comparable gold transactions (A$/oz Au)

	Implied A$/oz	**Normalised# A$/oz**
Number of transactions	7	7
Minimum	6.03	5.84
Maximum	82.42	84.07
Median	10.31	11.58
Weighted Average	18.00	19.42

Normalised to March 2015 gold price of A$1,524.73/oz.

Table 5-3: Comparative Gold Property Transactions in eastern Australia to May 2015

Transaction	Assets	Date	Gold price (A$/oz)	Seller	Buyer	Synopsis	Equity	State	Stage	Tonnes	Grade (g/t Au)	Contained Au (oz)	% Ind+ Meas	$/oz	Normalised
BrightStar divestment of Challenger	Challenger Mines	Jan-11	1,364.06	BrightStar Resources Ltd	Unnamed	In January 2011, BrightStar sold Challenger Mines Limited to an unnamed buyer for a total of A$1.75M, paid in cash in 4 instalments.	100%	NSW	Production	1,268,000	2.941	119,871	54.3	13.09	14.63
GBM divestment of Beavis	Beavis Project	Aug-12	1,557.43	GBM Gold Ltd	Wiltshire Asset Management	In August 2012, GBM sold its Beavis project to Wiltshire for A$5M, paid in 19 instalments, ending in November 2014. If the project was not in production within 18 months, GBM would retain 10%, with a further 10% for each 6 months thereafter.	100%	VIC	Development	2,246,227	0.628	44,956	0.28	103.21	101.04
Goldfields earn-in to Blayney	Blayney & Cheesemans Project	Aug-12	1,557.43	Straits Resources Ltd	Gold Fields Ltd	In August 2012, Gold Fields purchased the right to earn up to 80% interest in the Blayney project by sole funding A$25M in exploration expenditure over 12 years. Goldfields may earn an initial 60% interest by sole funding A$10M in exploration expenditure within a period of 6 years. Thereafter, Gold Fields may elect to continue to sole fund a further A$15M to earn an additional 20% in a further 6 years. Each earn in point crystallises a payment to Straits for the resources already discovered at Blayney, with the payment for the 60% option being 0.6*(existing resource*A$5), and the payment for the 20% option being 0.2*(existing resource*A$5).	60%	NSW	Advanced exploration	51,000,000	0.68	1,121,418	9.6	11.62	11.37
Newcrest consolidation of Forest Reefs	Forest Reefs	Jul-12	1,544.85	Jervois Mining Ltd	Newcrest Mining Ltd	In July 2012, Newcrest agreed to acquire the remaining 20% equity in the Forest Reefs JV for a consideration of A$200,000. Jervois would retain a 1.5% NSR from all minerals recovered.	20%	NSW	Advanced exploration	861,000	3.4	94,000	100	10.64	10.50
Iron Mountain sale of Golden Camel	Golden Camel Project	Oct-14	1,391.37	Iron Mountain Mining Limited	Golden Camel Mining Pty Ltd	In October 2014, Iron Mountain agreed to sell its Golden Camel project for cash and contingent payments as follows: a deposit of A$25,000 for a due diligence period of 120 days to undertake independent technical test work and project evaluation. If the agreement proceeds to settlement and mining commences within 3 years, Golden Camel Mining will pay A$100,000 one month after commencement of mining and A$200,000 two months after commencement of mining. If mining has not commenced within 3 years, Golden Camel will either transfer 100% interest in each tenement back to iron Mountain, or pay A$150,000 one month after commencement of mining and A$250,000 two months after commencement of mining.	100%	VIC	Pre-Development	266,000	1.7	14,600	88.3	10.31	11.30
Fe Ltd sale of Gympie Eldorado	Gympie Eldorado Mine	Aug-13	1,494.91	Fe Ltd	Private interest	In August 2013, Fe Ltd agreed to sell the closed Gympie Eldorado Mine and associated land and infrastructure. Consideration was A$250,000 in cash, with Fe Ltd retaining a NSR royalty of 3% on gold recovered from the mine and tailings, and 10% of profits on any subsequent sale of freehold land.	100%	QLD	Adv - pre-development	158,160	9.63	49,700	31.3	5.03	5.13
LionGold acquisition of Hargraves	Hargraves Project	Oct-14	1,391.37	Hill End Gold Limited	LionGold Corp Limited	In October 2014, LionGold proposed to acquire the Hargraves Gold Project and Boiga exploration ground from Hill End Gold for A$2M in cash and up to A$10M worth of fully-paid ordinary shares in LionGold. Hill End announced in October 2014 that the agreement had been terminated.	100%	NSW	Development	2,850,000	2.7	245,000	44.2	31.31	34.31
Arc earn-in on Junee and Oberon	Junee and Oberon Projects	Apr-13	1,432.49	New South Resources Ltd	Arc Exploration Ltd	In April 2013, Arc agreed to earn up to 80% on the Junee and Oberon projects. After spending a minimum of A$100,000 on Junee and A$135,000 on Oberon, Arc could earn a 51% interest in one or both projects by sole funding A$500,000 within two years on each project it elects to progress. Arc could then increase its interest up to 80% in one or both projects by sole funding a further A$580,000 within one further year on each project it elects to progress.	51%	NSW	Pre-development	7,380,000	0.96	227,000	28.2	9.16	9.75
Malachite acquisition of Lorena	Lorena Gold Project	Sep-10	1,357.50	Volga Elderberry Pty Ltd	Malachite Resources Ltd	In September 2010, Malachite agreed to acquire the Lorena project from Volga Elderberry by issuing 350 million new Malachite shares, priced at 6c each.	100%	QLD	Development	272,800	8.9	78,000	65	193.85	217.73

Transaction	Assets	Date	Gold price (A$/oz)	Seller	Buyer	Synopsis	Equity	State	Stage	Tonnes	Grade (g/t Au)	Contained Au (oz)	% Ind+ Meas	$/oz	Normalised
Elysium takeover of Burraga	Lucky draw Project	Aug-13	1,494.91	Burraga Copper Ltd	Elysium Resources Ltd	In August 2013, Elysium announced an off-market takeover bid for Burraga and its Lucky Draw project. Elysium offered six and a half fully paid ordinary shares in Elysium for each Burraga share, and one Elysium share for each Burraga option, effectively valuing 100% of Burraga at approximately A$7.35M based on the closing price of Elysium shares on 29 August 2013.	100%	NSW	Pre-Development	1,122,000	2.21	80,256		82.42	84.07
Burraga acquisition of Lucky Draw	Lucky Draw Project	Aug-10	1,351.00	Republic Gold Limited	Burraga Copper Pty Ltd	In August 2010, Burraga agreed to buy the Lucky Draw assets from Republic Gold for A$800,000.	100%	NSW	Pre-Development/ production	888,000	2.715	78,000	26.4	10.26	11.58
Regis acquisition of McPhillamys	McPhillamys Gold Project	Aug-12	1,557.43	Newmont Mining Corp; Alkane Resources Ltd	Regis Resources Ltd	In August 2012, Regis agreed to acquire the McPhillamys gold project from the joint venture owners of the project, Newmont Mining Corp (51%) and Alkane Resources Ltd (49%). The agreed consideration was A$150M, paid in Regis shares issued at A$4.20 per share.	100%	NSW	Pre-Development	57,400,000	1.36	2,500,000	71.9	54.00	52.87
Hudson acquires interest in Mt Adrah	Mt Adrah Gold Project	Jun-14	1,365.81	ICP Ltd	Hudson Resources Limited	In June 2014, Hudson Resources acquired 17.2% in Mount Adrah Gold Limited, which holds the Mt Adrah gold project, for A$2M.	17%	NSW	Pre-Development	20,500,000	1.1	770,000	59	15.10	16.86
GBM acquisition of Mt Coolon	Mt Coolon Project	Feb-15	1,575.43	Drummond Gold Limited	GBM Resources Limited	In February 2015, GBM Resources agreed to acquire Mt Coolon from Drummond Gold for A$850,000 and 50 million fully paid ordinary shares in GBM.	100%	QLD	Pre-Development	5,173,000	1.737	290,155	12.9	6.03	5.84
Mantle acquisition of Norton Mine	Norton Gold Mine	Nov-13	1,364.17	Norton Gold Fields Limited	Mantle Mining Corp Ltd	In November 2013, Mantle agreed to purchase the Norton Gold Mine from Norton Gold Fields for A$300,000 in cash.	100%	QLD	Production	458,000	7.4	109,125	79.9	2.75	3.07
WPG consolidation of Tunkillia	Tunkillia Gold Project	Nov-14	1,356.95	Helix Resources Limited	WPG Resources Limited	In November 2014, WPG announced that it had acquired the remaining 30% interest in the Tunkillia project from Helix, thereby attaining 100% interest in the project. Consideration for the transaction was A$500,000 cash and the issue of 10 million ordinary WPG shares. Further contingent consideration includes A$500,000 in cash and a further 10 million WPG shares payable on commencement of mine construction over the existing resource, or in the event of the sale of more than 50% of the project, or a change in control of WPG.	30%	SA	Feasibility	27,000,000	1.0	894,000	79.3	4.54	5.10
WPG acquisition of interest in Tunkillia	Tunkillia Gold Project	Apr-14	1,394.18	Mungana Goldmines Limited	WPG Resources Limited	In May 2014, WPG acquired a 100% stake in Tunkillia Gold Pty Ltd, which in turn held a 70% interest in the Tunkillia gold project and a 100% interest in the Tarcoola gold project. Consideration included a deposit of A$150,000, a cash payment of A$1.35M and 7.5 million fully paid ordinary shares in WPG on completion. Further contingent consideration of up to A$1.25M in cash or shares was payable upon achievement of various project milestones.	70%	SA	Feasibility	27,274,000	1.113	976,272	80.3	2.74	3.00

Notes: Outlier transactions highlighted in blue. Data sourced from SNL database and company websites.

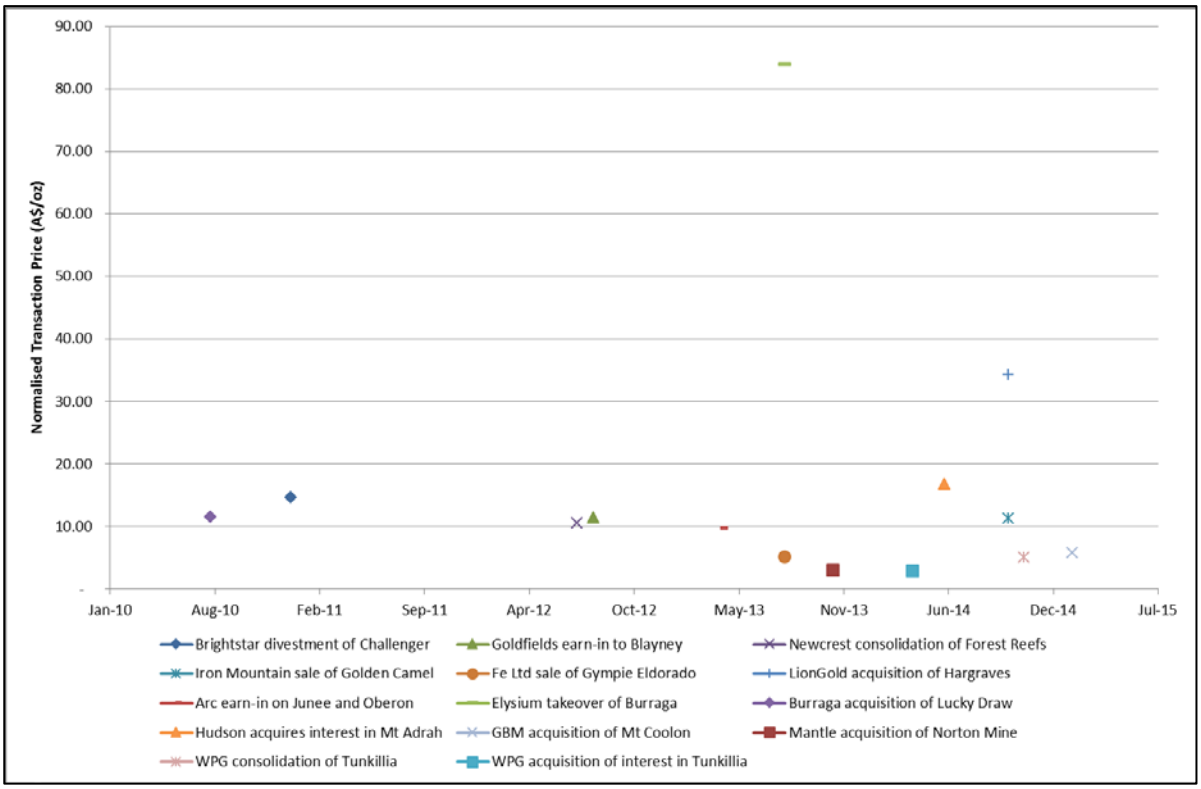


Figure 5-5: Gold resource transactions in Australia (outliers excluded)

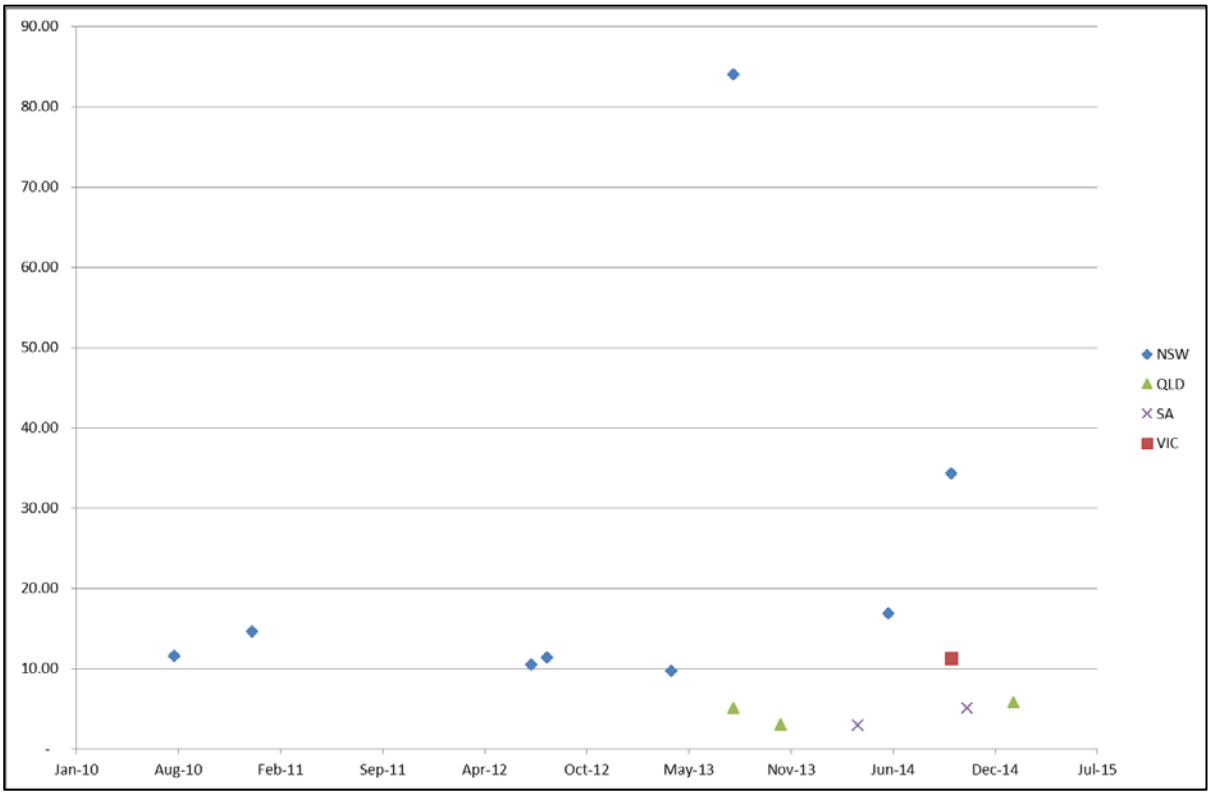


Figure 5-6: Gold resource transactions by state (outliers excluded)

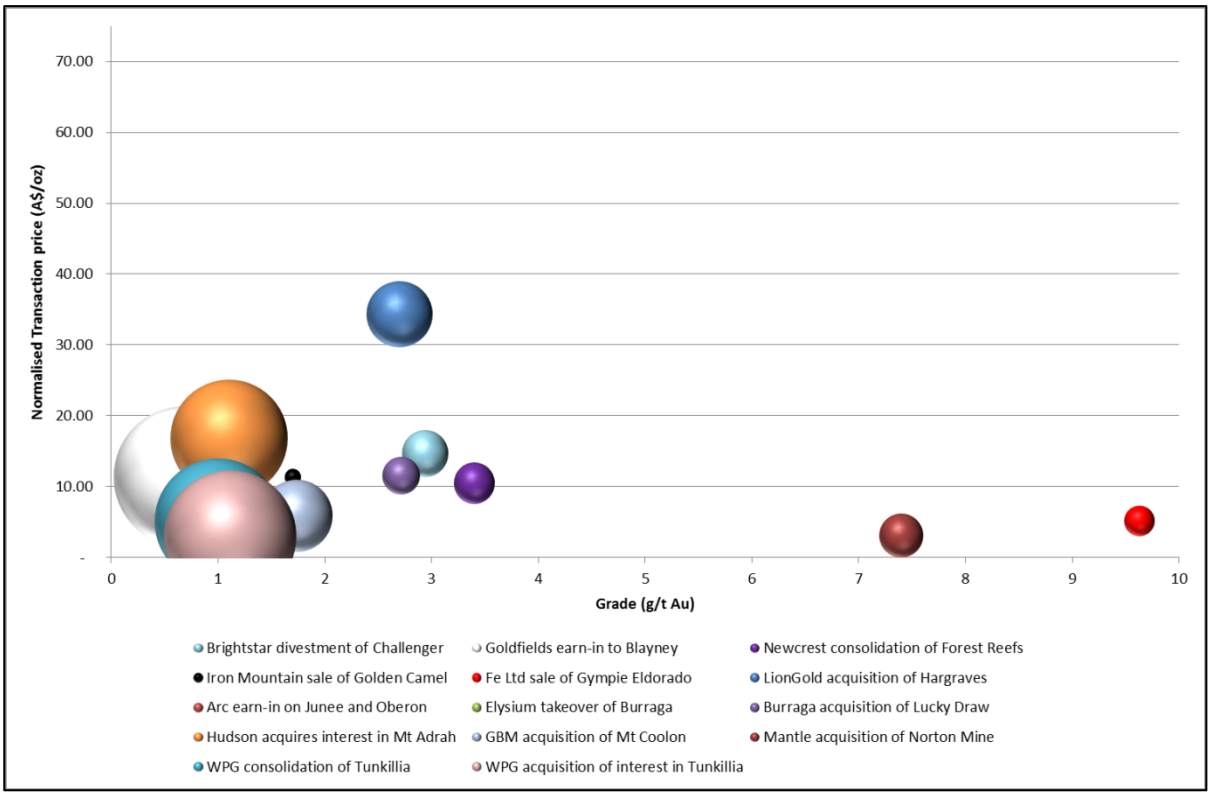


Figure 5-7: Gold resource transactions by Au grade and contained Au (outliers excluded)

Note: Bubble size represents Au resource ounces.

5.2.4 Gold Comparable Market Transactions – Area based

Transactions concerning 10 of these properties were also analysed in terms of implied value per square kilometre of tenement area (only 10 were analysed due to the limited data on areas at the time of the transaction), with 5 considered comparable in terms of area transacted. The implied A$/km^2 values for the 5 relevant transactions ranged from A$505/km^2 to A$41,525/km^2, with a median value of A$6,415/km^2. The area-weighted average value was A$2,050/km^2. When normalised to the March 2015 gold price of A$1,524.73/oz, this changed to a range of A$553/km^2 to A$45,506/km^2, with a median of A$6,828/km^2 and a weighted average of A$2,205/km^2. SRK notes that the large range is primarily due to the mixture in development stages of the projects, and the range of tenement sizes, which varied from 183 km^2 to 5,286 km^2.

In general, projects that contained current known resources were valued much more highly than those that did not include current resources and very large tenement areas were effectively valued lower on an area basis, even though the overall transaction price may still have been substantial.

5.2.5 Gold - Comparison with Yardstick Method

In the Yardstick method of valuation, specified percentages of the spot price of the metal is used to value the Resources. Commonly used Yardstick factors are:

- Not in reported resource - <0.5% of spot price;
- Inferred Resources - 0.5% to 1% of spot price;
- Indicated Resources - 1% to 2% of spot price; and
- Measured Resources - 2% to 5% of spot price.

SRK notes that the Yardstick Method is not generally considered to be a suitable primary Valuation method, but is considered an acceptable secondary Valuation method (Lawrence, 2012).

Using a gold price of A$1,524.73/oz (average of March 2015), the factor derived from the analysis of comparative transactions (A$19.42/oz) equates to approximately 1.3% of the spot price, which is in line with the generally accepted Yardstick factor for Indicated Resources.

SRK notes that this is slightly higher than the Inferred range of 0.5–1.0% which is expected given the advanced nature of the selected comparable transactions which have Resources at both the Inferred and Indicated classification.

SRK has chosen to treat the Resources of MUX's project on an Inferred basis therefore; SRK is of the opinion that the Yardstick valuation method broadly supports the Valuation Ranges derived from the analysis of Comparable Transactions and should be used as a supporting method.

SRK prefers to rely on the actual factor derived from the analysis of the comparative transactions, as this is relevant to the particular style of mineralisation, geographic area and specific market conditions prevailing.

5.2.6 Gold, Silver & Copper – Comparative Transactions

In assessing a valuation factor for gold resource metal ratio ounces, SRK analysed 5 transactions of predominantly gold properties in Eastern Australia (Northern Territory, Queensland, New South Wales, Victoria and South Australia) that occurred after January 2010, all 5 of these transactions were considered to be suitable comparatives for the valuation of MUX's gold Mineral Resources (Table 5-3). The projects considered ranged from Advanced Exploration to Producing projects and all included declared Resources classified as Inferred or higher (Table 5-4).

The transactions were analysed in terms of the implied purchase price in A$ and the declared resource base at the time of the transaction. All values and factors quoted are in A$. Consideration paid in shares was considered at a 10% discount to cash consideration and contingent payments were risk weighted. Share prices at the time of the announcement of the transactions were considered where shares formed a part of the consideration and the timing of payments, as set out in the initial agreements, was also taken into account.

The implied price in A$ per ounce Au metal ratio ranges from A$2.95 to A$68.53, with a median of A$6.93 and an average of A$18.99 (Table 5-2). When normalised to the March 2015 gold price of A$1,524.73/oz, this changes to a low of A$2.70 to a high of A$67.19, with a median of A$7.22 and an average of A$18.80.

SRK considers the derived value of A$18.80 per ounce Au metal ratio to be a reasonable factor for consideration as a supporting method for MUX's Pre-Development Projects.

Table 5-4: Comparative Gold-Silver-Copper property transactions to May 2015

Transaction	WPG consolidation of Tunkillia	WPG acquisition of interest in Tunkillia	Mungana acquisition of Tunkillia	Elysium takeover of Burraga	Silver Lake acquisition of Phillips River
Assets	Tunkillia gold project	Tunkillia gold project	Tunkillia gold project	Lucky Draw project	Phillips River project
Date	Nov-14	Apr-14	Dec-11	Aug-13	Mar-12
Commodities	Gold, Silver	Gold, Silver	Gold, Silver	Gold , Silver, Copper, Zinc (trace)	Gold , Silver, Copper, Lead, Zinc (trace)
Gold price (A$/oz)	1,356.95	1,394.18	1,623.05	1,494.91	1,587.71
Silver price (A$/oz)	18.43	21.19	29.79	24.21	31.24
Copper price (A$/t)	7,750.19	7,165.55	7,472.35	7,947.34	8,035.25
Lead price (A$/t)	2,343.9	2,240.96	2,001.38	2,403.23	1,950.95
Zinc price (A$/t)	2,601.42	2,176.66	1,889.27	2,097.24	1,931.25
Seller	WPG Resources Limited	WPG Resources Limited	Mungana Goldmines Limited	Elysium Resources Ltd	Silver Lake Resources Ltd
Buyer	WPG Resources Limited	WPG Resources Limited	Mungana Goldmines Limited	Elysium Resources Ltd	Silver Lake Resources Ltd
Synopsis	In November 2014, WPG announced that it had acquired the remaining 30% interest in the Tunkillia project from Helix, thereby attaining 100% interest in the project. Consideration for the transaction was A$500,000 cash and the issue of 10 million ordinary WPG shares. Further contingent consideration includes A$500,000 in cash and a further 10 million WPG shares payable on commencement of mine construction over the existing resource, or in the event of the sale of more than 50% of the project, or a change in control of WPG.	In May 2014, WPG acquired a 100% stake in Tunkillia Gold Pty Ltd, which in turn held a 70% interest in the Tunkillia gold project and a 100% interest in the Tarcoola gold project. Consideration included a deposit of A$150,000, a cash payment of A$1.35M and 7.5 million fully paid ordinary shares in WPG on completion. Further contingent consideration of up to A$1.25M in cash or shares was payable upon achievement of various project milestones	In December 2011, Minotaur agreed to sell the Tunkillia gold project to Mungana for A$4M in cash and A$2M in Mungana shares.	In August 2013, Elysium announced an off-market takeover bid for Burraga and its Lucky Draw project. Elysium offered six and a half fully paid ordinary shares in Elysium for each Burraga share, and one Elysium share for each Burraga option, effectively valuing 100% of Burraga at approximately A$7.35M based on the closing price of Elysium shares on 29 August 2013.	In late March 2012, Silver Lake Resources and Phillips River Mining announced an agreement whereby Silver Lake would acquire a 100% interest in the Phillips River project for A$21 million in shares. Silver Lake would acquire Kundip and "Other Assets" for 2.9 million shares.
Equity	30%	70%	55%	100%	100%
100% Transaction Price (A$M)	3.55	2.67	10.59	6.62	18.90
State	SA	SA	SA	NSW	WA
Stage	Feasibility	Feasibility	Reserves Development	Pre- Development	Feasibility
Tons	27,000,000	27,000,000	15,500,000	1,122,000	22,620,000
Grade (g/t Au)	1	1	1.626	2.211	1.906
Contained Au (oz)	894,000	894,000	810,000	80,256	1,385,500
Contained Metal Ratio Grade (g/t)	1.04	1.04	1.69	2.68	3.75
Contained Metal Ratio Au (oz)	902,261	906,332	840,360	96,532	2,727,604
Gold oz Normalised ($/oz)	3.53	2.73	13.92	80.81	14.20
Metal Ratio Normalised ($/oz)	3.50	2.70	13.42	67.19	7.22

Table 5-5: Analysis of Gold-Silver-Copper transactions* (A$/oz per Au metal ratio)

	$/oz Au	$/oz Au metal ratio
Minimum	2.95	2.70
Maximum	68.53	67.19
Median	6.93	7.22
Average	18.99	18.80

*Number of transactions: 9

5.2.7 Base Metals Comparable Market Transactions

SRK considered a database of 22 transactions involving polymetallic resource projects, primarily zinc and copper, during the period January 2010 to May 2015. Of these 22 transactions, only eight transactions involving zinc-dominant resources and two transactions involving copper-dominant resources contained sufficient information necessary to analyse the transactions (Table 5-6).

The transactions were analysed in terms of the implied purchase price in A$ and the declared resource base at the time of the transaction. All values and factors quoted are in A$. Consideration paid in shares was considered at a 10% discount to cash consideration and contingent payments were risk weighted. Share prices at the time of the announcement of the transactions were considered where shares formed a part of the consideration and the timing of payments, as set out in the initial agreements, was also taken into account.

Metal ratio tonnes and ounces were calculated using the stated metal grades of the declared resources at the time of the transaction. This has allowed SRK to apportion the in situ value of the resources by multiplying tonnes or ounces by the metal price at the time of the transaction and then determine which percentage of the total transaction value should be attributed to each metal stated in the resource. SRK notes that this method does not account for differences in recoveries of the various elements and implicitly assumes total recoverability.

SRK has considered the average implied A$ per tonne of Zn, Cu, Pb and per ounce of Ag and Au of the eight transactions (Zn outliers removed) on the valuation of Mungana assets, as presented in Table 5-7.

SRK's approach to the valuation of Poly Metallic Pre-Development projects is to value them using the valuation factors derived from the analysis of comparative market transactions and the MTR, which is the ratio of the transaction value to the gross dollar metal content, expressed as a percentage (Roscoe, 2012).

Table 5-6: Comparative polymetallic resource transactions in Australia to 27 May 2015

Name	Date	Synopsis	Seller	Buyer	Equity	Tonnage	Zn Grade (%)	Zn Contained (t)	Cu Grade (%)	Cu Contained (t)	Pb Grade (%)	Pb Contained (t)	Ag Grade (g/t)	Ag Contained (oz)	Au Grade (g/t)	Au Contained (oz)
Woodlawn, Lewis Ponds	Mar-14	In March 2014, Heron Resources agreed to merge with TriAusMin Limited by issuing 1 Heron share for every 2.33 TriAusMin shares.	TriAusMin Limited	Heron Resources Limited	100%	30,210,000	4.92	1,485,380	0.86	258,720	2.24	675,620	57.36	55,717,002	0.64	617,713
Kapok, Lennard Shelf, Fossil Downs, Wagon Pass	Jul-11	In July 2011, Chinese state-owned Northwest Nonferrous International Investment acquired the 58.66% of Meridian Minerals shares that it did not already own for a cash consideration of A$0.14 per Meridian share, valuing Meridian's equity at approximately A$68M.	Meridian Minerals Ltd	Northwest Nonferrous Investment Co Ltd	59%	18,830,000	5.22	983,626	-	-	4.39	827,242	21.33	12,907,000	-	-
Reward Project	Oct-10	In October 2010, Rox signed a letter of intent with Teck whereby Teck could earn up to 70% of Reward by spending A$15M on exploration over an 8-year period with a minimum of A$1M by July 2012 (including 2,000 m of drilling) before Teck could withdraw. Teck could earn an initial 51% by spending $5M over 4 years, and could earn a further 19% by spending an additional A$10M over an additional 4 years.	Rox Resources Ltd	Teck Resources Ltd	51%	43,600,000	4.09	1,780,000	-	-	0.95	412,000	-	-	-	-
Prairie Downs	Jun-10	In June 2010, Prairie Downs signed a Binding Heads of Agreement whereby Ivernia had the option to acquire up to 80% interest in the Prairie Downs project through cash or share payments and exploration expenditure. Ivernia agreed to invest a minimum of A$2M in exploration within 12 months. Ivernia could earn a 60% interest by funding exploration expenditure of A$3M within 18 months and paying Prairie $10M in cash or shares. Ivernia would have the option to earn an extra 20% interest by sole funding expenditure of an additional A$5M over the following 2 years subsequent to acquiring the 60% interest. Ivernia withdrew from the agreement in June 2012, after funding 2 phases of drilling.	Prairie Downs Metals Ltd	Ivernia Inc	60%	2,980,000	4.94	147,000	-	-	1.59	47,000	14.98	1,435,000	-	-
Peelwood Project	Dec-13	In December 2013 Balamara agreed to sell up to a 49% interest in Peelwood to CEB for cash payments totalling A$1.2M in 3 tranches over 12 months. CEB could earn 20% by paying an initial tranche of A$400,000 within 30 days, a further 15% within six months by paying a second tranche of A$400,000 and a final 14% within 12 months via a third tranche payment of A$400,000.	Balamara Resources Ltd	CEB Resources	20%	895,000	3.94	35,338	0.80	7,176	0.73	7,014	16.00	445,768	-	-
Menninnie Dam Project	Oct-12	In October 2012, Musgrave agreed to earn up to a 75% interest in Menninnie Dam through exploration expenditure of A$8M over 7 years. Musgrave committed to a minimum expenditure of A$1M within the first 12 months, with the option to earn a 51% interest by spending a further A$5M on the project over a further 4 years. Once Musgrave acquires a 51% interest, Terramin can contribute on a pro-rata basis. If Terramin elects not to contribute, Musgrave may elect to earn a further 24% interest through expenditure of an additional A$3M over an additional 2 years.	Terramin Australia Ltd	Musgrave Minerals Ltd	51%	7,700,000	3.10	238,700	-	-	2.60	200,200	27.00	6,684,140	-	-
Manbarrum Project	Aug-13	In August 2013, TNG agreed to sell Manbarrum to Legacy for A$5M, comprised of an initial A$2 million cash payment following the due diligence period, and an additional A$3M in cash or Legacy shares to be paid on a deferred basis, subject to transfer of the tenements.	TNG Ltd	Legacy Iron Ore Ltd	100%	32,429,000	1.48	478,000	-	-	0.32	104,000	9.12	9,506,000	-	-
Lennons Find Project	Jun-13	In June 2013, Laconia agreed to divest the Lennons Find project to Musketeer Minerals. Consideration consisted of a non-refundable deposit of A$100,000 cash for a 6-month exclusive option to acquire the project, and A$400,000 cash and a 10% equity stake in fully paid ordinary shares in either MKM or the shell company within 7 days of MKM or the shell company either listing on the ASX or completing a capital raising of A$2M.	Laconia Resources Ltd	Musketeer Minerals Pty Ltd	100%	1,846,000	5.15	94,800	0.20	3,694	1.47	27,400	81.85	4,858,000	0.26	15,300
Walford Creek	Apr-14	In April 2014, Aeon acquired Aston Metals by issuing a non-recourse loan with 12% pa capitalised interest payable after 3 years, secured over Aston Metals, and issuing 48.275 million AQR shares at 14.5c and issuing unlisted 3 year options with a face value of A$10M.	Aston Copper Pty Ltd	Aeon Metals Limited	100%	48,300,000	0.88	425,040	0.39	188,580	0.83	400,890	20.40	31,645,015		
Rookwood property	Jun-14	In June 2014, Zenith acquired a 51% interest in Rookwood for A$200,000 cash and 500,000 ordinary shares, with an option to purchase the remaining 49% equity for A$300,000 cash and 3 million Zenith ordinary shares within 24 months.	Fitzroy Resources Limited	Zenith Minerals Limited	51%	1,750,000	2.05	36,000	1.71	30,000	-		8.50	478,000	0.24	14,000

Notes: Zinc-dominant resources highlighted in blue, copper-dominant resources highlighted in orange. Data sourced from SNL database and company websites.

Table 5-7: Analysis of comparable base metal resource transactions to May 2015

With Outliers Considered	Zinc ($/t)	Copper ($/t)	Lead ($/t)	Silver ($/t)	Gold ($/t)	MTR (%)
Average	358.70	1318.11	369.78	3.91	2.02	3.54
Median	80.20	290.99	84.65	0.53	0.99	0.68
Weighted Average	14.67	12.41	16.15	0.02	0.96	
Without Zn Outliers	**Zinc ($/t)**	**Copper ($/t)**	**Lead ($/t)**	**Silver ($/t)**	**Gold ($/t)**	**MTR (%)**
Average	22.23	41.48	23.93	0.20	1.97	0.99
Median	11.61	11.70	12.48	0.03	1.97	0.54
Weighted Average	16.19	14.06	26.95	0.19	1.93	

Note: MTR – Metal Transaction Ratio.

5.2.8 Base Metals – Comparison with Yardstick Method

In the Yardstick method of valuation, specified percentages of the spot price of the metal is used to value the Resources.

Commonly used Yardstick factors are:

- Not in reported resource - <0.5% of spot price;
- Inferred Resources - 0.5% to 1% of spot price;
- Indicated Resources - 1% to 2% of spot price; and
- Measured Resources - 2% to 5% of spot price.

SRK notes that the Yardstick Method is not generally considered to be a suitable primary Valuation method, but is considered an acceptable secondary Valuation method (Lawrence, 2012). In this case, SRK is of the opinion that the Yardstick valuation method supports the Valuation Range derived from the analysis of Comparable Transactions.

Using a zinc price of A$2,624.45/t (average March 2015), the factor derived from the analysis of comparative transactions (A$22.23) equates to approximately 0.85% of the spot price, which is in line with the generally accepted Yardstick factor for Inferred Resources. Using a copper price of A$7,683.81./t (average March 2015), the factor derived from the analysis of comparative transactions (A$41.48) equates to approximately 0.55% of the spot price, which is at the low end but in line with the generally accepted Yardstick factor for Inferred Resources. As outlined previously, SRK's opinion is that the stated global figures for each deposit's Mineral Resources are acceptable as Inferred Resources only.

SRK prefers to rely on the actual factor derived from the analysis of the comparative transactions, as this is relevant to the particular style of mineralisation, geographic area and specific market conditions prevailing.

5.3 Valuation Basis

SRK has considered the declared resources associated with the Mungana, Red Dome, Griffiths Hill/ Red Dome and King Vol, the exploration targets associated with Red Dome Leach Pad, Shannon-Zillmanton, Mungana Base Metal Lode, Montevideo, Penzance, Victoria, Queenslander and Morrisons deposits, as well as the areal extent and exploration potential of the granted exploration tenure (Table 5-8).

Table 5-8: Valuation Basis of the Exploration Assets

Mineral Asset	Tenements	Development Stage	Valuation basis
Mungana/Mungana Base Metal Lode	ML 20640, ML 5319	Pre-Development/Advanced Exploration	Declared Resources/ Exploration Target
Red Dome	ML 5176, ML 4928, ML 4977	Pre-Development	Declared Resources
Griffiths/Red Dome	ML 5176, ML 4928, ML 4977	Pre-Development	Declared Resources
King Vol	MLA 20658	Pre-Development	Declared Resources
Red Dome Leach Pad	ML 5176, ML 4928, ML 4977	Advanced Exploration	Exploration Target ounces
Shannon-Zillmanton	ML 4910, ML 4911, ML 4921	Advanced Exploration	Exploration Target ounces
Montevideo	EPM 7672	Advanced Exploration	Exploration Target
Penzance	EPM 15458	Advanced Exploration	Exploration Target
Victoria	EPM 15458	Advanced Exploration	Exploration Target
Queenslander	EPM 15458	Advanced Exploration	Exploration Target
Morrisons	EPM 15458	Advanced Exploration	Exploration Target
Chillagoe	EPM 12902, EPM 15458, EPM 15459, EPM 18530, EPM 19064, EPM 7672, EPM 14104, EPM 14108, EPM 19196	Exploration	Areal extent and exploration potential
Charters Towers	EPM 25132, EPM 25133, EPM 25134, EPM 25135, EPM 25148, EPM 25270, EPM 25271, EPM 25437, EPM 25680	Exploration	Areal extent and exploration potential

SRK notes that the VALMIN Code 2005 cautions against ascribing value to licences under application. SRK is not aware of any current exploration licences that are under application that are the subject of this application.

King Vol is located within Mining Licence Application, MLA 20658; however, the project is also within EL 7672, a granted Exploration Licence. SRK has not applied a discount to account for the risk that the licence may be not granted, as this valuation is focused on the Resources and not Reserves at this stage.

5.4 Valuation of Au Predominant Pre-Development Projects as at May 2015

SRK's approach to the valuation of Au predominant Pre-Development projects is to value them using the valuation factors derived from the analysis of comparative market transactions. This primary valuation approach is cross-checked against the valuation range obtained using the Yardstick valuation approach.

SRK notes that in using the stated resource grades and the ratio of the metal prices to the Au price to calculate Au metal ratio ounces for these assets, the recoveries of the other metals is likely to be overstated, and the Au metal ratio ounces calculated is likely to be larger than what would be practically achievable.

SRK has considered the Resources of both Mungana and the Red Dome Pre-Development Projects as global estimates and priced the Resources at an Inferred level.

5.4.1 Mungana Pre-Development Project

The Mungana Pre-Development Project Resource consists of a total of 47.8 Mt at 0.68 g/t Au, 13 g/t Ag and 0.19% Cu for 1,043,000 oz Au or approximately 1,622,000 oz Au metal ratio. SRK has considered comparable market transactions in valuing the Mungana Pre-Development Project. Due to the comparative technical risk inherent in Inferred Resources, SRK recommends a range of 35% above and below this target factor. This would yield a range of A$13.2M to A$27.3M on the basis of Au ounces, and A$19.8M to A$41.2M on the basis of gold metal ratio ounces.

The Yardstick factors of 0.5% to 1% of the spot price for Inferred Resources would yield a range of A$8.0M to 15.9A$M, assuming gold oz only and using a spot price (average March 2015) of A$1,524.73/oz. This is in broad agreement with the range derived using the comparative transaction approach.

SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting the resources into reserves. This is related to the existence of flooded underground workings, lower grade and the depth of underground workings. The impact of the depth of the underground resource is minimised by the presence of a decline in place to 650 m.

SRK's Preferred value has been derived by taking the average of the low range value for Comparative Au $/oz and gold metal ratio $/oz

SRK recommends that MUX's 100% interest in the Mungana Pre-Development Project, comprising 1,043,000 oz Au (with additional Ag, Cu resources), be valued in the range A$13.2M to A$27.3M, with a preferred value of A$16.5M.

5.4.2 Red Dome Pre-Development Project

The Red Dome Pre-Development Project resource consists of a total of 75.1 Mt at 0.64 g/t Au, 5.2 g/t Ag and 0.22% Cu, for 1,534,000 oz Au or approximately 2,142,000 oz Au metal ratio. SRK has considered comparable market transactions in valuing the Red Dome Pre-Development Project. Due to the comparative technical risk inherent in Inferred Resources, SRK recommends a range of 35% above and below this target factor. This would yield a range of A$19.4M to A$40.2M on the basis of gold ounces, and A$26.2M to A$54.4M on the basis of gold metal ratio ounces.

The Yardstick factors of 0.5% to 1% of the spot price for an Inferred Resource would yield a range of A$11.7M to A$23.4M, using a spot price (average March 2015) of A$1,524.73/oz. This is in broad agreement with the range derived using the comparative transaction approach.

SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting resources into reserves due to the existence of flooded pits, lower grade, depth of resources and metallurgical issues due to problematic clay mineralogy encountered in the oxide profile at Red Dome. SRK's Preferred value has been derived by taking the average of the low range value for Comparative Au $/oz and metal equivalency $/oz.

SRK's Preferred value has been derived by taking the average of the low range value for Comparative Au $/oz and gold metal ratio $/oz.

SRK recommends that MUX's 100% interest in the Red Dome Pre-Development Project, comprising 1,534,000 oz of Au (with additional Ag, Cu resources, be valued in the range A$19.4M to A$40.2M, with a preferred value of A$22.8M.

5.5 Valuation of Base Metals Predominant Pre-Development Projects as at May 2015

SRK's approach to the valuation of primarily base metals (or polymetallic) Pre-Development projects is to initially value these assets using the valuation factors derived from the analysis of comparative market transactions and the Metal Transaction Ratio (MTR), which is the ratio of the transaction value to the gross dollar metal content, expressed as a percentage (Roscoe, 2012). This is cross-checked against the valuation range obtained using commonly applied Yardstick valuation factors.

5.5.1 Griffiths Hill/ Red Dome Pre-Development Project

MUX has a 100% interest in the Griffiths Hill/Red Dome Pre-Development Project, a polymetallic deposit with a copper predominant resource and a zinc predominant resource. SRK has considered comparable market transactions in valuing the Griffiths Hill/Red Dome Pre-Development Project. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Inferred Resources, SRK recommends a range of 35% above and below this target factor. This would yield a range of A$0.9M to A$2.4M for the Griffiths Hill/Red Dome Pre-Development Project copper predominant deposit, and a range of A$0.09M to A$0.18M for the zinc predominant deposit, on the basis of metal price per tonne obtained through the analysis of zinc and copper predominant comparable transactions. The final range for Griffiths Hill/Red Dome has been considered as A$0.98M to A$2.6M.

The Yardstick factors of 0.5% to 1% of the all metals spot prices (average March 2015) for Inferred Resources would yield a range of A$1.67M to A$3.35M.

SRK has also determined a range of A$1.8M to A$3.3M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

SRK's preferred value is at the low end of the ranges defined by the MTR and yardstick methods, but approximates to the preferred comparative transactions value.

SRK recommends that MUX's 100% interest in Griffiths Hill/Red Dome Pre-Development Project be valued in the range A$1.0M to A$3.35M, with a preferred value of A$1.9M.

5.5.2 King Vol Pre-Development Project

MUX has a 100% interest in the King Vol Pre-Development Project, a polymetallic zinc predominant deposit. SRK has considered comparable market transactions in valuing the King Vol Pre-Development Project. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

King Vol is located within Mining Licence Application, MLA 20658; however, the project is also within EL 7672, a granted Exploration Licence. SRK has not applied a discount to account for the risk that the licence may be not granted, as this valuation is focused on a resources valuation within an EL.

Due to the comparative technical risk inherent in Inferred Resources, SRK recommends a range of 35% above and below this target factor. This would yield a range of A$6.4M to A$13.3M.

SRK has also determined a range of A$6.5M to A$11.9M when applying the MTR valuation method.

The Yardstick factors of 0.5% to 1% of the all metals spot prices (average March 2015) for Inferred Resources would yield a range of A$5.2M to A$12.1.

The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%). SRK's preferred value is the lowest of the preferred values as all methods provide a consistent value.

SRK recommends that MUX's 100% interest in King Vol Pre-Development Project be valued in the range A$5.2M to A$13.3M, with a preferred value of A$9.1M.

5.6 Valuation of Advanced Exploration Areas as at May 2015

SRK's approach to valuing the Advanced Exploration areas is to discount the valuation factor for declared resources that has been derived from the analysis of transactions, and to apply the discounted factor to the target ounces. This is cross-checked against the valuation range obtained using commonly applied Yardstick valuation factors for material not in the reported resource category.

5.6.1 Red Dome Leach Pad Advanced Exploration

MUX has a 100% interest in the Red Dome Leach Pad Advanced Exploration area, which has been considered by SRK to have an Exploration Target of 6.9 Mt to 7.3 Mt at 0.22 g/t to 0.41 g/t Au, based on current exploration work (including drilling) and historic surface contours.

Based on SRK's analysis of comparable market transactions, a factor of A$19.42/oz has been derived for the valuation of declared Resource ounces, SRK considers the use of a further factor of 0.7 to be reasonable in deriving a valuation for the Red Dome Leach Pad Advanced Exploration area, in order to account for the greater technical risk inherent in Exploration Targets as opposed to declared Resources. This factor is higher than the factor used for the Shannon-Zillmanton Advanced Exploration Area, due to the quantity of recent exploration work that has gone into defining the Red Dome Leach Pad project).

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$0.54M to A$1.61M for the Red Dome Leach Pad Advanced Exploration area on the basis of gold ounces.

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$0.6M, using a spot price of A$1,524.73/oz. When applying the 0.7 factor a preferred target value of A$0.42M is determined. This is lower than the range derived above, although it is close to the lower end of the range.

SRK suggests a preferred value at the low end of the comparable market transaction range of values, in recognition of the low grade range of the Exploration Target.

SRK recommends that MUX's 100% interest in the Red Dome Leach Pad Advanced Exploration area be valued in the range A$0.42M to A$1.61M, with a preferred value of A$0.5M.

5.6.2 Shannon-Zillmanton Advanced Exploration

Mungana has a 100% interest in the Shannon-Zillmanton Advanced Exploration area, which has been considered by SRK to have an Exploration Target of 2.5 Mt to 5.1 Mt at 0.46 to 0.86 g/t Au, based on previous exploration work (including drilling) and internal resource estimates. SRK considers the use of a further factor of 0.5 to be reasonable in deriving a valuation for an Exploration Target, in order to account for the greater technical risk inherent in Exploration Targets as opposed to declared Resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$0.41M to A$1.23M for the Shannon-Zillmanton Advanced Exploration area on the basis of gold ounces.

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$0.65M; when applying the 0.5 factor a preferred target value of A$0.33M is determined using a spot price of A$1,524.73/oz. This is lower than the range derived above, although it is close to the lower end of the range. SRK suggests a preferred value towards the lower end of the suggested range of values, in recognition of the low grades.

SRK recommends that MUX's 100% interest in the Shannon-Zillmanton Advanced Exploration area be valued in the range A$0.33M to A$1.23M, with a preferred value of A$0.45M.

5.6.3 Mungana Base Metal Lode Advanced Exploration

MUX has 100% interest in the Mungana Base Metal Lode Advanced Exploration area, a polymetallic zinc predominant deposit. SRK has considered this project has an Exploration Target of 44,000 t at 10.5% Zn, 1.9% Cu, 0.1% Pb, 0.9 g/t Au and 124 g/t Ag. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$0.09M to A$0.26M for the Mungana Base Lode Advanced Exploration area on the basis of metal price per tonne obtained through the analysis of zinc predominant comparable transactions.

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$0.12M, using average March 2015 metals spot prices.

SRK has also determined a range of A$0.13M to A$0.24M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

SRK's preferred value is the average of each method's lower value, which is in agreement with the range derived by the three methods.

SRK recommends that MUX's 100% interest in the Mungana Base Metal Lode Advanced Exploration area be valued in the range A$0.09M to A$0.26M, with a preferred value of A$0.11M.

5.6.4 Montevideo Advanced Exploration

MUX has 100% interest in the Montevideo Advanced Exploration area, a polymetallic zinc predominant deposit. SRK has considered this project has an Exploration Target of 720,000 t at 7.7% Zn, 0.2% Pb and 7g/t Ag. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$0.65M to A$1.95M for the Montevideo Advanced Exploration area on the basis of metal price per tonne obtained through the analysis of zinc predominant comparable transactions.

SRK has also determined a range of A$0.82M to A$1.5M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$0.76M, using average March 2015 metals spot prices.

SRK's preferred value is the average of each method's lower value, which is in agreement with the range derived by the three methods.

SRK recommends that MUX's 100% interest in the Montevideo Advanced Exploration area be valued in the range A$0.65M to A$1.95M, with a preferred value of A$0.74M.

5.6.5 Penzance Advanced Exploration

MUX has 100% interest in the Penzance Advanced Exploration area, a polymetallic deposit with a copper predominant resource and a zinc predominant resource.

SRK has considered this project has a copper predominant Exploration Target of 228,000 tonnes at 1.3% Zn, 3.2% Cu, 0.2 g/t Au, and 58 g/t Ag.

SRK has also considered this project has a zinc predominant Exploration Target of 85,000 tonnes at 6.2% Zn, 0.2% Pb, 0.7% Cu, 0.1 g/t Au, and 19 g/t Ag.

Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$0.23M to A$0.69M for the Penzance Advanced Exploration area copper predominant deposit, and a range of A$0.08M to A$0.23M for the zinc predominant deposit, on the basis of metal price per tonne obtained through the analysis of zinc and copper predominant comparable transactions. The final range for Penzance has been considered as A$0.31M to A$0.92M.

SRK has also determined a range of A$0.49M to A$0.89M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$0.35M for the copper predominant deposit and of A$0.10M for the zinc predominant deposit, and a total of A$0.45M, using average March 2015 metals spot prices.

SRK's preferred value is at the low end of the MTR method and just above the target Yardstick value, and towards the middle of the range defined by the valuation methods and also the comparative transactions.

SRK recommends that MUX's 100% interest in the Penzance Advanced Exploration area be valued in the range A$0.31M to A$0.89M, with a preferred value of A$0.6M.

5.6.6 Victoria Advanced Exploration

MUX has 100% interest in the Victoria Advanced Exploration area, a polymetallic zinc predominant deposit. SRK has considered this project has an Exploration Target of 3,440,000 tonnes at 5.1% Zn, 1.0% Cu, 0.1g/t Au and 22g/t Ag. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$2.92M to A$8.75M for the Victoria Advanced Exploration area on the basis of metal price per tonne obtained through the analysis of zinc predominant comparable transactions.

SRK has also determined a range of A$4.28M to A$7.82M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$3.96M, using average March 2015 metals spot prices.

SRK's preferred value is at the low end of the MTR range which is slightly above the Yardstick target value and towards the middle of the comparable transaction range.

SRK recommends that MUX's 100% interest in the Victoria Advanced Exploration area be valued in the range A$2.92M to A$7.82M, with a preferred value of A$3.72M.

5.6.7 Queenslander Advanced Exploration

MUX has 100% interest in the Queenslander Advanced Exploration area, a polymetallic zinc predominant deposit. SRK has considered this project has an Exploration Target of 1,570,000 tonnes at 4.4% Zn, 0.2% Pb, 0.5% Cu and 12g/t Ag. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$1.02M to A$3.09M for the Queenslander Advanced Exploration area on the basis of metal price per tonne obtained through the analysis of zinc predominant comparable transactions.

SRK has also determined a range of A$1.41M to A$2.58M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$1.31M, using average March 2015 metals spot prices.

SRK's preferred value is the average of each method's lower value, which whilst not in agreement with the range of all methods is close to the low of both the MTR and Yardstick target value which SRK considers reasonable given the low grade of the Resources.

SRK recommends that MUX's 100% interest in the Queenslander Advanced Exploration area be valued in the range A$1.0M to A$2.6M, with a preferred value of A$1.25M.

5.6.8 Morrisons Advanced Exploration

MUX has 100% interest in the Morrisons Advanced Exploration area, a polymetallic zinc predominant deposit. SRK has considered this project has an Exploration Target of 1,930,000 t at 5.4% Zn, 0.3% Pb, 0.6% Cu, 0.1 g/t Au and 21 g/t Ag. Based on SRK's analysis of comparable market transactions, factors for all the metals reported as resources have been derived for the valuation of declared total resources.

Due to the comparative technical risk inherent in Exploration Targets, SRK recommends a range of 50% above and below this target factor. This would yield a range of A$1.69M to A$5.08M for the

Morrisons Advanced Exploration area on the basis of metal price per tonne obtained through the analysis of zinc predominant comparable transactions.

SRK has also determined a range of A$2.73M to A$4.98M when applying the MTR valuation method. The lower value has been based on the median MTR (0.54%) and the higher value based on the average MTR (0.99%).

The Yardstick factor of 0.5% of the spot price for material not in declared Resources would yield a target value of A$2.53M, using average March 2015 metals spot prices.

SRK's preferred value is the average of each method's lower value, which whilst not in agreement with the range of all methods is close to the low of both the MTR and Yardstick target value which SRK considers reasonable given the low grade of the Resources.

SRK recommends that MUX's 100% interest in the Morrisons Advanced Exploration area be valued in the range A$1.69M to A$4.98M, with a preferred value of A$2.32M.

5.7 Valuation of MUX 100% Exploration Areas as at May 2015

In valuing MUX's exploration areas, SRK has first removed the areas of the mining leases, which contain the declared Resources, and the Exploration Targets and have been valued separately.

SRK has considered the expenditure requirement to maintain the tenements in good standing, the expenditure to date on the tenements, and the planned expenditure on the tenements, as disclosed by MUX. In addition, SRK has considered the exploration potential of the tenements in carrying out a Modified Kilburn valuation of the tenements.

Finally, SRK considered the implied value of the ground holding by applying an area-based valuation factor derived from the analysis of comparative transactions.

5.7.1 Modified Kilburn Methodology

The Geoscientific or Modified Kilburn method of valuation, as described by Kilburn (1990), attempts to quantify the relevant technical aspects of a property through the use of appropriate multipliers (factors) applied to an appropriate base (or intrinsic) value. The intrinsic value is referred to as the Base Acquisition Cost (BAC), and is critical as it forms the standard base from which to commence a valuation. It represents "the average cost to identify, apply for and retain a base unit of area of title".

Multipliers or factors are considered for Off-property aspects, On-property aspects, Anomaly aspects and Geological aspects. These multipliers are applied sequentially to the BAC to estimate the Technical Value for each tenement. A further Market Factor is then considered to derive a Fair Market Value.

SRK has used a BAC of A$550/km^2 for Queensland, which is in line with recent valuation reports by Agricola, Xstract Mining Consultants and Optiro.

SRK has assessed the Market Factor so that the average A$/km^2 factor for all licences assessed, is similar to the area-based valuation factor derived from the market analysis.

The rating criteria used for assessing the modifying factors are provided Table 5-9 and the ratings per tenement are provided in Table 5-10.

Table 5-9: Geoscientific ratings table (after Xstract, 2010)

Rating	Off Property Factor	On Property Factor	Anomaly Factor	Geological Factor
0.1				Unfavourable geological setting
0.5			Extensive previous exploration gave poor results	Poor geological setting
0.9			Poor results to date	Generally favourable geological setting, undercover
1	No known mineralisation in district	No known mineralisation on lease	No targets outlined	Generally favourable geological setting
1.5	Minor workings	Minor working or mineralised zones exposed	Target identified, initial indications positive	
2	Several old workings in district	Several old workings or exploration targets identified		Favourable geological setting, with structures or mineralised zones
2.5			Significant grade intercepts evident, but not linked on cross or long sections	
3	Mine or abundant workings with significant previous production	Mine or abundant workings with significant previous production		Significant mineralised zones exposed in prospective host rock
3.5			Several economic grade intercepts on adjacent sections	
4	Along strike from a major deposit(s)	Major mine with significant historical production		
5	Along strike from a world class deposit			
10		World class mine		

Table 5-10: Modified Kilburn Valuation Table – Mungana Exploration Assets

Tenement	Holder	Name	Area (km^2)	BAC	Equity	Off property		On Property		Anomaly		Geology		Technical Value		Market Factor	Valuation		
						Low	High	Low	High	Low	High	Low	High	Low	High		Low	High	Preferred
Chillagoe																			
EPM 7672	Mungana Goldmines Ltd	Walsh River	583	320,769.64	100%									2,205,130	20,619,549	0.40	882,052	8,247,820	4,564,936
EPM 12902	Mungana Goldmines Ltd	Arkaroola	66	36,074.01	100%	2	4	1.5	3	1.5	2.5	1	2.5	162,333	2,705,550.90	0.40	64,933	1,082,220	573,577
EPM 14104	Mungana Goldmines Ltd	Walsh River Extended	16	8,987.28	100%	2	4	1	1.5	1	1.5	2	2.5	35,949	202,214	0.40	14,380	80,886	47,633
EPM 14108	Mungana Goldmines Ltd	Walsh River Extended 2	16	9,020.58	100%	2	4	1	1.5	1	1.5	1	2	18,041	162,370	0.40	7,216	64,948	36,082
EPM 15458	Mungana Goldmines Ltd	Red Dome	66	36,076.16	100%	2	4	1.5	2	1.5	2	1	2	162,343	1,154,437	0.40	64,937	461,775	263,356
EPM 15459	Mungana Goldmines Ltd	Red Dome Extended	246	135,084.19	100%	2	4	2	3	1.5	3	2	3	1,621,010	14,589,092	0.40	648,404	5,835,637	3,242,020
EPM 18530	Mungana Pty Ltd	Red Dome West	26	14,403.12	100%	2	4	1	1.5	1	1.5	1	2	28,806	259,256	0.40	11,522	103,702	57,612
EPM 19064	Mungana Goldmines Ltd	Fluorspar	7	3,602.21	100%	2	4	1	1.5	1	1.5	1	2	7,204	64,840	0.40	2,882	25,936	14,409
EPM 19196	Mungana Goldmines Ltd	Dargalong	26	14,398.47	100%	2	4	1.5	2	1	1.5	1	2	43,195	345,563	0.40	17,278	138,225	77,752
			115	63,123.61	100%	2	4	1	1.5	1	1.5	1	2	126,247	1,136,225	0.40	50,499	454,490	252,494
Charters Towers																			
EPM 25132	Mungana Goldmines Ltd	Liontown 1	320	176,000.00	100%	2	3	1	1	1	1.5	1	2	352,000	1,584,000	0.40	140,800	633,600	387,200
EPM 25133	Mungana Goldmines Ltd	Liontown 2	279	153,450.00	100%	2	3	1	1	1	1.5	1	2	306,900	1,381,050	0.40	122,760	552,420	337,590
EPM 25134	Mungana Goldmines Ltd	Liontown 4	106	58,300.00	100%	2	3	1	1.5	1	2	1	2.5	116,600	1,311,750	0.40	46,640	524,700	285,670
EPM 25135	Mungana Goldmines Ltd	Liontown 3	254	139,700.00	100%	2	4	1	1.5	1	2	1	2	279,400	3,352,800	0.40	111,760	1,341,120	726,440
EPM 25148	Mungana Goldmines Ltd	Liontown 5	109	59,950.00	100%	2	3	1	1	1	1.5	1	2	119,900	539,550	0.40	47,960	215,820	131,890
EPM 25270	Mungana Goldmines Ltd	Liontown 6	10	5,500.00	100%	2	3	1	1.5	1	1.5	1	2	11,000	74,250	0.40	4,400	29,700	17,050
EPM 25271	Mungana Goldmines Ltd	Liontown 7	147	80,850.00	100%	2	4	1	1.5	1	2	1	2.5	161,700	2,425,500	0.40	64,680	970,200	517,440
EPM 25437	Mungana Goldmines Ltd	Liontown 8	321	176,550.00	100%	2	4	1	1	1	1.5	1	2.5	353,100	2,648,250	0.40	141,240	1,059,300	600,270
EPM 25680	Mungana Goldmines Ltd	Liontown 9	93	51,150.00	100%	2	3	1	1	1	1.5	1	2.5	102,300	575,438	0.40	40,920	230,175	135,548
			1,639	901,450										1,802,900	13,892,588		721,160	5,557,035	3,139,098

5.7.2 Chillagoe Exploration Area

SRK considers the Chillagoe Exploration Area, consisting of EPM 7672, EPM 12902, EPM 14104, EPM 14108, EPM 15458, EPM 15459, EPM 18530, EPM 19064 and EPM 19196, and covering an area of 583 km^2, to be an Exploration Area as defined by the VALMIN Code.

SRK considered the implied value of the ground holding by applying an area-based valuation factor derived from the analysis of comparative transactions; SRK considers this to be its preferred valuation method using the Kilburn method as a supporting method.

SRK has considered the expenditure requirement to maintain the tenements in good standing, the expenditure to date on the tenements and the planned expenditure on the tenements, as disclosed by MUX. In addition, SRK has considered the exploration potential of the tenements in carrying out a Modified Kilburn valuation of the tenements.

Both valuation methods employed here implicitly include potential credits from any gold mineralisation that may be present. As the gold mineralisation in this region is intimately associated with base metal mineralisation, any future potential mining operations would most likely recover gold along with the base metals. It is therefore not geologically reasonable, or reasonably feasible, to calculate a separate value for the gold mineralisation in isolation.

SRK has also considered the Comparable Transactions method for valuing the Chillagoe Exploration Areas. In this method, a value is derived for a package of tenements based on the areal extent of the tenement package, and a factor derived from the analysis of comparable transactions.

SRK analysed five transactions in terms of the price paid per square kilometre of tenement and related this to the gold price at the time of the transactions Table 5-11.

Table 5-11: Summary of SRK's Area based analysis of gold Transactions as of May 2015

	Area (Au $/km²)	Area Normalised(Au $/km²)
Minimum	505.85	553.22
Maximum	41,525.93	45,506.11
Median	6,415.07	6,828.15
Average	17,072.32	18,123.63
weighted average	2,050.19	2,205.80

SRK has selected the area-weighted average $/$km^2$ value for the Australian transactions analysed (Table 5-11), normalised to the March 2015 average gold price of A$1,524.73/oz, to define preferred value. The weighted average $/$km^2$ for the transactions, considering the average gold price at the time of each transaction, was A$2,205.80/$km^2$.

The high end of the valuation range is defined by the median $/$km^2$ value for the five transactions analysed, normalised to the March 2015 average gold price. The median normalised transaction price was A$6,828.15/$km^2$. The low end of the valuation range is defined by the minimum normalised transaction price, which was A$553.22/$km^2$.

Using the Comparable Transactions method of valuing exploration ground, SRK has derived a valuation range of A$0.3M to A$4.0M with a preferred value of A$1.3M for the Chillagoe tenement package of 583 km^2.

SRK has also considered the Modified Kilburn method for valuing the Chillagoe Exploration Areas. In this method, values are derived for individual tenements, based on the areal extent of the tenement, an average base cost of acquiring and holding a tenement, and individually assessed

factors that are correlated with mineralisation potential.

Using the criteria described in the Table 5-9, SRK assigned high and low ratings to each parameter for each tenement (Table 5-10). A BAC of A$550/km^2 and a market factor of 0.4 were used.

Because the numerical scale for the Kilburn factors is somewhat arbitrary, the Kilburn method returns a technical value that does not relate to the market price of tenements at any particular time. The relationship between the Kilburn technical value and the market value is modelled by applying a market factor to the technical valuation.

The Kilburn market factor was arrived at by estimating a factor that resulted in the average preferred price per area for the entire package being similar to the average price per area calculated from the analysis of transactions. In the case of the MUX tenements, this market factor is 0.4.

Using the Modified Kilburn method of valuing exploration ground, SRK has derived a Valuation Range of A$0.88M to A$8.25M, with a preferred value of A$4.55M for the Chillagoe tenement package of 583 km^2.

The Modified Kilburn method has yielded a comparatively large valuation range, which recognises the high risk involved in early-stage (pre-resource) exploration properties. In these types of properties, there is a material risk of extensive exploration work not resulting in economic deposits being identified and defined. There is also great opportunity, in that successful exploration may result in deposits of economic significance being identified.

The valuation by means of applying suitable valuation factors derived from the analysis of comparable transactions has yielded a narrower valuation range, which may better indicate how the market values these types of projects. The Modified Kilburn valuation range supports the Comparable Transactions range, in that it brackets the Comparable Transactions range, lending credence on a technical basis to the market-derived valuation range.

The fact that these tenement packages are associated with recent mining activity, and the nearby presence of advanced exploration with existing resources, justifies a preferred value that is closer to the upper end of the market-derived valuation range. The presence of these resources within or adjacent to the tenement packages is what also drives the upper end of the Kilburn valuation range.

SRK has been made aware of a recent transaction executed between MUX and Newcrest Resources. The total value of this deal is valued at A$20.0 M over 8 years for ~55% of the Chillagoe Exploration area. The total deal value is highly contingent on discovery of a 1M contained oz porphyry-style Cu-Au Resource. However, there is an initial buy-in consideration of $3.0M to be spent either in exploration or as a cash transfer to Mungana for 0% equity consideration. SRK considers this represents the minimum value of this exploration ground subject to the transaction.

SRK notes that remaining ~45% of the Chillagoe exploration ground is generally considered to less prospective, as identified by the Kilburn Method. Therefore, SRK recommends the minimum value range of A$3.0M.

SRK's preferred value is in agreement with the range derived by the valuation methods and in excess of the minimum value identified by the recent Newcrest transaction.

Based on SRK's analysis, SRK recommends that MUX's assessed 100% interest in the Chillagoe Exploration Area, comprising 583 km^2 be valued in the range A$3.0M to A$6.1M, with a preferred value of A$4.0M.

5.7.3 Charters Towers Exploration Area

SRK considers the Charters Towers Exploration Area, consisting of EPM 25132 to EPM 25135 inclusive, EPM 24148, EPM 25270, EPM 25271, EPM 25437 and EPM 25680 and covering an area of 1,639 km^2, to be an Exploration Area as defined by the VALMIN Code.

The total expenditure commitment for retaining the licences is ~A$4.0M.

The value of the Exploration Area is considered as a factor of the areal extent of the tenure. SRK has derived a factor for the valuation of the Exploration Area based on an analysis of comparable transactions.

Based on the analysis of transactions, SRK has used a factor of A$2,205.80/$km^2$ for the valuation of the Exploration Area, which gives a valuation of approximately A$3.6M. SRK considers this value suitable to define a Preferred Value for the exploration ground.

SRK has also conducted a Geoscientific Rating (Modified Kilburn) valuation of the property (Table 5-10) based on the rating matrix in Table 5-9. SRK has used a BAC of A$550/$km^2$ for Queensland, and a Market Factor of 0.4. This has yielded a “preferred” value of A$3.1M for the property, within a range of A$0.7M to A$5.5M.

SRK considers the range defined by the Kilburn method to be a suitable range for the valuation, as it reflects the level of risk in a mineral exploration project at this stage of development.

Based on SRK’s analysis, SRK recommends that MUX’s interest in the Charters Towers Exploration Area comprising 1,639 km^2 be valued in the range A$1.0M to A$5.5M, with a preferred value of A$3.5M.

6 Conclusion and Valuation Summary

Grant Thornton commissioned SRK to prepare an ITR and valuation report of MUX's mineral assets in Australia. The Report has been undertaken under the guidelines of the VALMIN Code (2005 Edition), which incorporates the JORC Code.

For this valuation, SRK used a recent high level review by SRK of MUX Mineral Resources, for the purpose of determining their validity from a valuation perspective, except for King Vol, for which an updated high level review was carried out. SRK's opinion is that the Mineral Resource Estimates for Mungana, Red Dome, Griffiths Hill/ Red Dome and King Vol deposits do not present fatal flaws and that the stated global figures for Mineral Resources are acceptable as representation of global grades and tonnages. Additional consideration of a geological or spatially meaningful approach to classification is recommended to address possible future issues with potentially poor conversion to reserves. Therefore, for the purposes of valuation only, the global resource estimates were considered.

All the Exploration Areas consist of exploration assets which are inherently speculative in nature, involving varying, high degrees of exploration risk.

While the VALMIN Code 2005 states that decisions as to which valuation methodology is used are the responsibility of the Expert or Specialist, where possible, SRK considers a number of methods. The aim of this approach is to compare the results achieved using different methods to select a preferred value within a valuation range. This reflects the uncertainty in the data and interaction of the various assumptions inherent in the valuation.

SRK has recommended preferred values and value ranges for MUX exploration properties on the basis of declared Resources, Exploration Targets and areal extent of tenure. SRK has recommended value ranges for Pre-Development Projects, Advanced Exploration Areas and Exploration Areas on the basis of an analysis of recent comparable transactions involving gold, silver, zinc, lead and copper properties in Australia.

In the case of the Gold Predominant Pre-Development Projects SRK has also compared the $/oz and the $/oz metal ratio valuation factor applied to the generally accepted Yardstick factors.

In the case of the zinc and copper predominant Pre-Development Projects and Advanced Exploration Areas, SRK has also compared the $/tonne or ounce valuation factor applied to the generally accepted Yardstick factors and the MTR method.

SRK's preferred value was then determined within the range of possible values obtained for each deposit, considering all the available information provided by MUX.

In the case of the Exploration Areas, SRK has also considered exploration commitments and expenditure, as well as a Modified Kilburn rating system to arrive at a valuation range.

SRK is not aware of any royalty agreement involving the MUX mineral assets considered in this Valuation Report.

SRK notes that the VALMIN Code 2005 cautions against ascribing value to licences under application and that King Vol is located within MLA 20658, which consists of an application licence. However, the project is also within EL 17672 which consists of a granted exploration licence. SRK has not applied a discount to account for the risk that the licence may be not granted, as this valuation is focused on the Resources and not Reserves at this stage.

SRK's recommended valuation ranges and preferred values for each project are summarised in Table 6-1. SRK has produced a Fair Market Value (as defined by VALMIN Code 2005). SRK's preferred values include additional technical considerations related to the mineralisation, such

as grade and depth. It also considers the information verbally provided by MUX management team on the results of preliminary technical studies and or exploration. The review of these studies was not part of SRK's scope of work.

Table 6-1: Summary of SRK's Valuation of MUX's assets as of May 2015

Project	Owner	Low Value (A$M)	High Value (A$M)	Preferred Value (A$M)
Pre-Development Projects				
Mungana*	MUX	13.2	27.3	16.5
Red Dome**	MUX	19.4	40.2	22.8
Griffiths Hill	MUX	1.0	3.4	1.9
King Vol	MUX	5.2	13.3	9.1
Total Pre-Development Projects		**38.8**	**84.2**	**50.3**
Advanced Exploration Areas				
Mungana Base Metal Lode***	MUX	0.1	0.3	0.1
Penzance	MUX	0.3	0.9	0.6
Queenslander***	MUX	1.0	2.6	1.3
Morrisons***	MUX	1.7	5.0	2.3
Victoria***	MUX	2.9	7.8	3.7
Montevideo***	MUX	0.7	2.0	0.7
Red Dome Leach Pad***	MUX	0.4	1.6	0.5
Shannon-Zillmanton***	MUX	0.3	1.2	0.5
Total Advanced Exploration Areas		**7.4**	**21.3**	**9.7**
Exploration Areas				
Chillagoe	**100% MUX**	**3.0**	**6.1**	**4.0**
Charters Towers	**100% MUX**	**1.0**	**5.5**	**3.5**
Total Exploration Areas		**4.0**	**11.6**	**7.5**
Total After Transaction		**50.2**	**117.1**	**67.5**

***Mungana Pre-Development Project:** SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting the Resources into Reserves. This is related to the existence of flooded underground workings, lower grade and the depth of underground workings. The impact of the depth of the underground resource is minimised by the presence of a decline in place to 650 m.

****Red Dome Pre-Development Project:** SRK suggests a preferred value towards the lower end of the suggested range, in recognition of the expected difficulties in converting Resources into Reserves due to the existence of flooded pits, lower grade, depth of resources and metallurgical issues due to problematic clay mineralogy encountered in the oxide profile at Red Dome.

*****Base Metal Projects preferred values:** SRK has generally considered the average of the lower values derived from each of the three methods (comparable transactions, Yardstick and MTR) as the preferred value for the polymetallic base metal projects. Where average grades were considered to be low SRK has chosen a value based on the primary valuation method and considered appropriate given the range of values and grade and tonnes.

SRK has then considered a final range for the MUX assets based on a 15% range around the preferred value (Table 6-2).

SRK's valuation of MUX's assets is generally towards the lower end of the ranges derived by the analysis of comparative transactions and supporting methods. Whilst SRK's preferred value is positioned conservatively within this range; SRK has adopted this position due to varying levels of technical and geological uncertainty across the MUX assets, including but not limited to the expected difficulties in converting resources into reserves, lower grades across some assets and/or possible metallurgical issues.

SRK has provided an estimate of fair market value of the MUX assets. SRK has not provided an estimate of the value of Mungana Goldmines Ltd.

Table 6-2: Summary of SRK's Valuation of MUX's assets as of May 2015

Project	Owner	Low Value (A$M)	High Value (A$M)	Preferred Value (A$M)
Mungana Total Assets	MUX	57.4	77.6	67.5

Compiled by

Mathew Davies

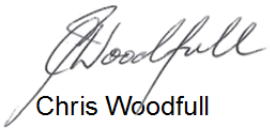
Senior Consultant

Compiled by

Bryce Healy

Principal Consultant

Peer Reviewed by



Chris Woodfull

Principal Consultant

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http://www.munganagoldmines.com.au

http://www.kagara.com.au/

http://www.theaustralian.com.au

Appendices

Appendix A: Resources Reports provided by MUX

King Vol Resource Estimate
December 2014

Mungana Gold Mines

15 December 2014

Mungana Gold Mines

Attention: Andrew Beaton

Dear Andrew

RE: December 2014 Resource Report

The following report outlines the technical aspects of the December 2014 Resource update for the King Vol Skarn Deposit. The focus on the report is the technical aspects of the Resource Estimation as many aspects of the project are the same as for the previous resource estimate completed in March 2012.

Yours Faithfully

Brian Wolfe
Principal Resource Geologist

Author(s): Brian Wolfe Principal Resource Geologist BSc(Hons), MAIG

Date: 15 December 2014

Version / Status: Draft

Document Change Control

Version	Description (section(s) amended)	Author(s)	Date

Document Review and Sign Off

Author
Brian Wolfe

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EXECUTIVE SUMMARY

The December 2014 resource update for the King Vol Skarn Deposit of the Chillagoe Project is outlined in Table A below.

Mineral Resources were modelled using data derived from Mungana Gold Mines ('Mungana') drillhole database. This database is essentially the same as used for the previous update of the King Vol resource completed by Kagara Limited in March 2012, however around 700 sample pulps have been re-assayed due to QAQC batch failures (relating to standards performance). Drilling, sampling and QAQC procedures have been reviewed and procedures as reviewed are considered to be of high industry standard.

Previous resource estimates for the King Vol Skarn Deposit had employed an ordinary kriging ('OK') methodology into 33 individually interpreted wireframes with the vast majority of the resource tonnes contained within one interpreted zone. For the purposes of the current resource estimate, many of these smaller wireframes have been consolidated according to stratigraphical position and a total of 3 separate wireframes have been used as input.

The current resource update for King Vol incorporates ordinary kriged resource estimates for the three major interpreted domains. Indicated and Inferred Resources have been outlined.

Table A

Chillagoe Project– King Vol Skarn Deposit

December 2014 Ordinary Kriged Resource Estimate

Category	Tonnage (Mt)	Grade Zn %	Grade Cu %	Grade Pb %	Grade Ag g/t	Metal Zn kt	Metal Cu kt	Metal Pb t	Metal Ag Moz
Indicated	1.045	14.7	0.9	0.7	36.5	154	9	7	1.23
Inferred	1.943	10.4	0.7	0.5	26.4	202	13	10	1.65

Note: Figures have been rounded

1 INTRODUCTION

In mid-2014 Mungana Goldmines Limited (Mungana) requested an update to the Resources for the King Vol Skarn Deposit which is part of the Chillagoe Project in North Queensland (Figure 1_1). This follows on from the previous resource estimate completed by Kagara Ltd in March 2012 which had been generated via ordinary kriging into 33 separately interpreted lodes on the basis of a nominal 6% zinc equivalent cutoff. At that time a number of the assay batches failed to pass QAQC protocols and these batches were subsequently re-assayed requiring an update to the mineral resource estimates. The current update has been generated on the same basis as previously, however the wireframes have been rationalised into three domains with the majority of the tonnes in one domain, the Eastern Mineralised Contact Zone (EMCZ).

Figure 1_1
Chillagoe Project Location

The current resource update for King Vol incorporates ordinary kriged resource estimates for the three interpreted domains (Eastern Mineralised Contact Zone, Eastern Mineralised Replacement Zone and the King Vol Zone). Their relative contribution by volume to the total is approximately 84%, 14.5% and 1.5%.

This report describes the technical aspects of the resource estimation. The geology and mineralisation style of the area is dealt with in detail in other reports including a Kagara Limited report entitled "*King Vol Resource Estimation Report*" dated March 2012.

Mungana's drilling, sampling and QAQC procedures as described in the aforementioned reports have also been reviewed and are considered to be of high standard.

2 2014 RESOURCE ESTIMATES

2.1 Resource Database and Validation

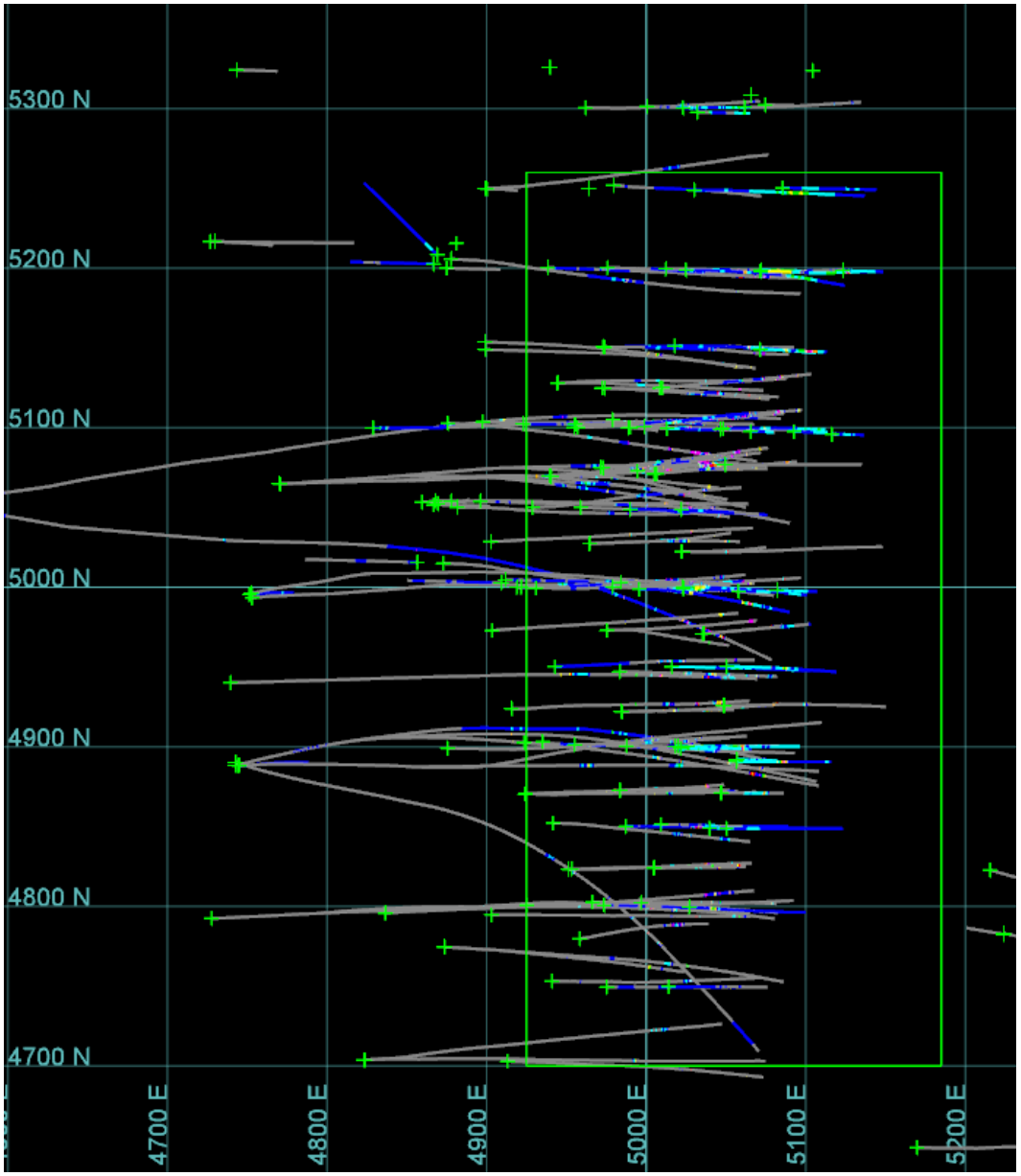
The drillhole database provided by Mungana for the King Vol Gold Project consists of some 210 drillholes for 49,140m (Figure 2.1_1). The database can be further broken down into diamond drilling (DD, 50 drillholes, 14,949.8m), reverse circulation drilling (RC, 73 drillholes, 8,318m) and drillholes collared by RC and completed by DD (RCDD, 87 drillholes, 25,878.2m). A number of trenches are also present however this data has not been used for the purpose of resource modelling. The database contains some 4,671 assays that relate to drilling. The drillholes were typically drilled at a dip of between 45° and 70° towards 90° (local grid) with a small number of drillholes drilled at similar dips towards 270°. Only RC and diamond drilling and sampling were used in the estimates.

Validation checks of the database were undertaken prior to the estimate including:

- Overlapping intervals, irregular downhole surveys, and total depth checks.
- During the course of the 3D modelling of the resource, the database was checked for any gross survey and position errors.

During the course of the undertaken checks, a number of drillholes were found to have collar positions that did not coincide with the supplied topo. This was corrected and the resulting database was considered to be robust and appropriate for use in resource estimation.

Figure 2.1_1
King Vol Skarn Deposit
Drillhole Location Plan



2.2 Geological Interpretation and Modelling

The King Vol polymetallic base metal deposit is entirely hosted within sediments and carbonate rocks of the Chillagoe Formation. Mineralisation is located along sheared contacts and within limestone units and has been previously interpreted to form six separate horizons.

Stratigraphically, from west to east, the following lithological units are recognised:

- The Western Limestone (WL) is comprised mostly of light to medium grey foliated limestones, fossiliferous in parts with interbeded olive green sheared chloritic basalts.

- The Arkose (ARK) is a more massive unit of light to medium grey, fine grained, poorly bedded siliceous sandstones. It displays various degrees of chlorite and sericite alteration. Skarn alteration in the unit can vary from strong retrograding garnet skarn to massive pyroxene and feldspar skarn.

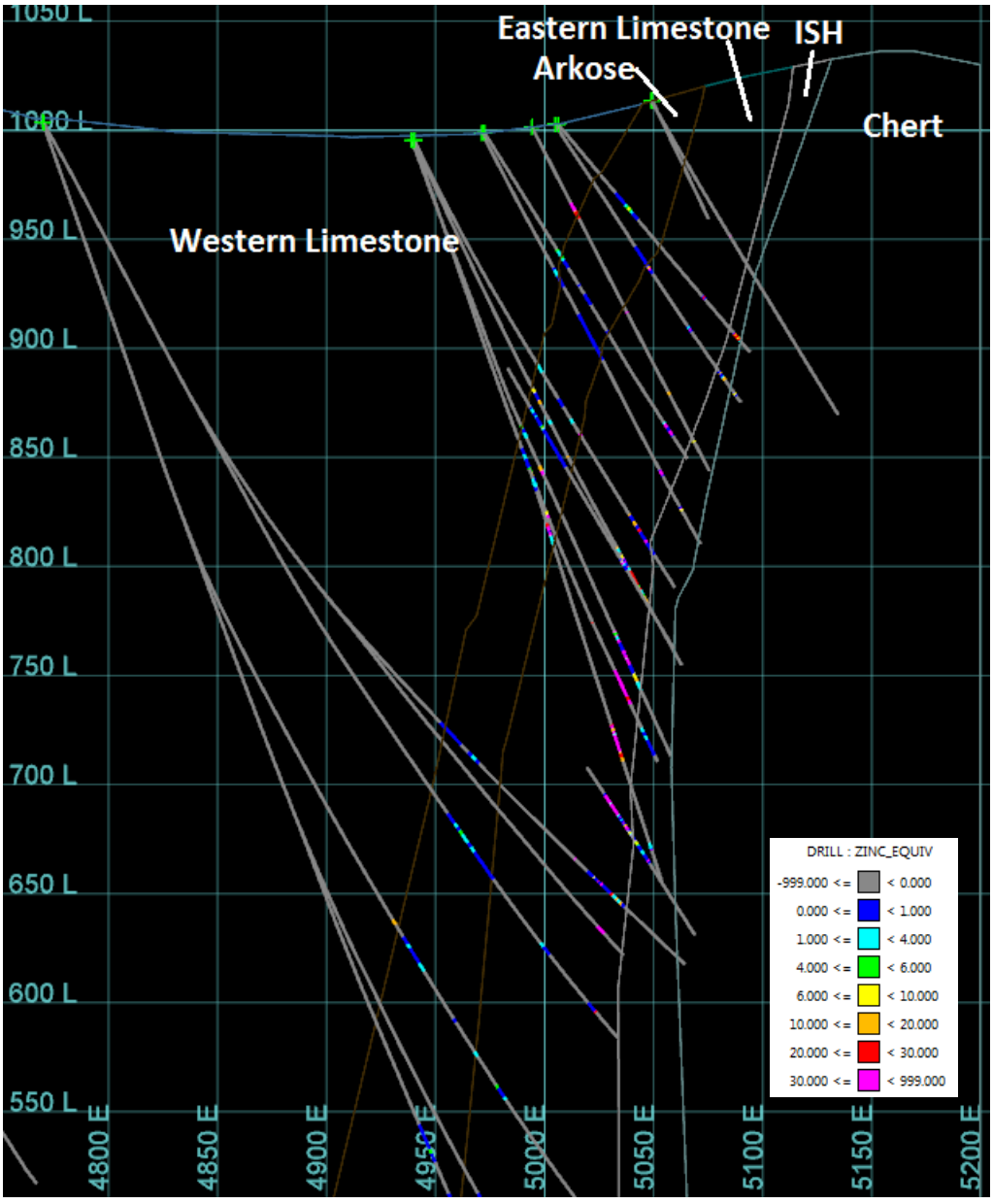
- The Eastern Limestone (EL) is very similar to the Western Limestone. Comprised mainly of foliated limestone's, rarely fossiliferous and interbeded with sheared chloritic shales.

- The interbedded sandstones and shales (ISH) unit is very specific to the King Vol deposit. It is comprised of thinly bedded siltstones and sandstones, occasionally with minor mafic horizons, is typically highly disrupted and brecciated in appearance.

- The Chert unit is mostly massive, with some whispy shale partings and variable degrees of fracture and brecciation.

An E-W sectional view (Section 5,075mN) is presented in Figure 2.2_1 which demonstrates the relationship between the lithological units.

Figure 2.2_1
King Vol Skarn Deposit
Section 5,075mN Lithological relationships



The mineralised zones are either found on the contacts of these units associated with skarn or replacing limestone within the sequence (Figure 2.2_2). The main mineralised horizon, the Eastern Mineralised Contact Zone (EMCZ) occurs on the contact of the Eastern Limestone and the ISH. This steeply dipping mineralized sheet of variable thickness and orientation contributes the majority of the total resource volume as previously discussed. The zone strikes for over 470m in a roughly north - south direction and dips steeply to the west at approximately 85^0. The EMCZ is intersected in drillcore over 750m below surface and is open at depth. Sphalerite is the main sulphide mineral found and can be iron rich and in the form of marmatite. Copper is generally in the form of chalcopyrite and lead galena. Sulphides are generally massive to semi-massive, often associated directly with garnet and/or pyroxene skarn and sometimes brecciated. Gangue sulphide minerals include arsenopyrite, pyrite, pyrrhotite, magnetite and marcasite. Within the EMCZ a high grade shoot has been identified that is over 15m wide in places. The shoot extends to approximately 620mRL at approximately 5,050N and has not been adequately closed off by drilling.

The Eastern Zone Mineralised Replacement (EZMR) is a significant mineralised replacement zone within the Eastern Limestone unit. There are a number of separate lenses that have been identified within the Eastern Limestone and these have been combined for the purposes of resource estimation. The mineralised horizon has a similar strike and dip as the EMCZ though lacks the robust continuity. Although the economic sulphide minerals are the same as the EZMC the distribution of these minerals is not homogenous between the horizons or between lenses on the same horizon.

The King Vol Zone is a mineralised horizon that lies stratigraphically above the EMRZ. It is largely confined to the Western Limestone unit adjacent to the contact of the Arkose unit and is volumetrically insignificant compared to the other two mineralised horizons described above.

Other mineralised domains have previously been interpreted however these have either not been modelled due to lack of continuity as determined by drilling or have been included in the 3 domains described above.

The main weathering contacts (e.g.: top of fresh rock, top of transition) were modelled using 3D surfaces supplied by Mungana.

Figure 2.2_2
King Vol Skarn Deposit Domains

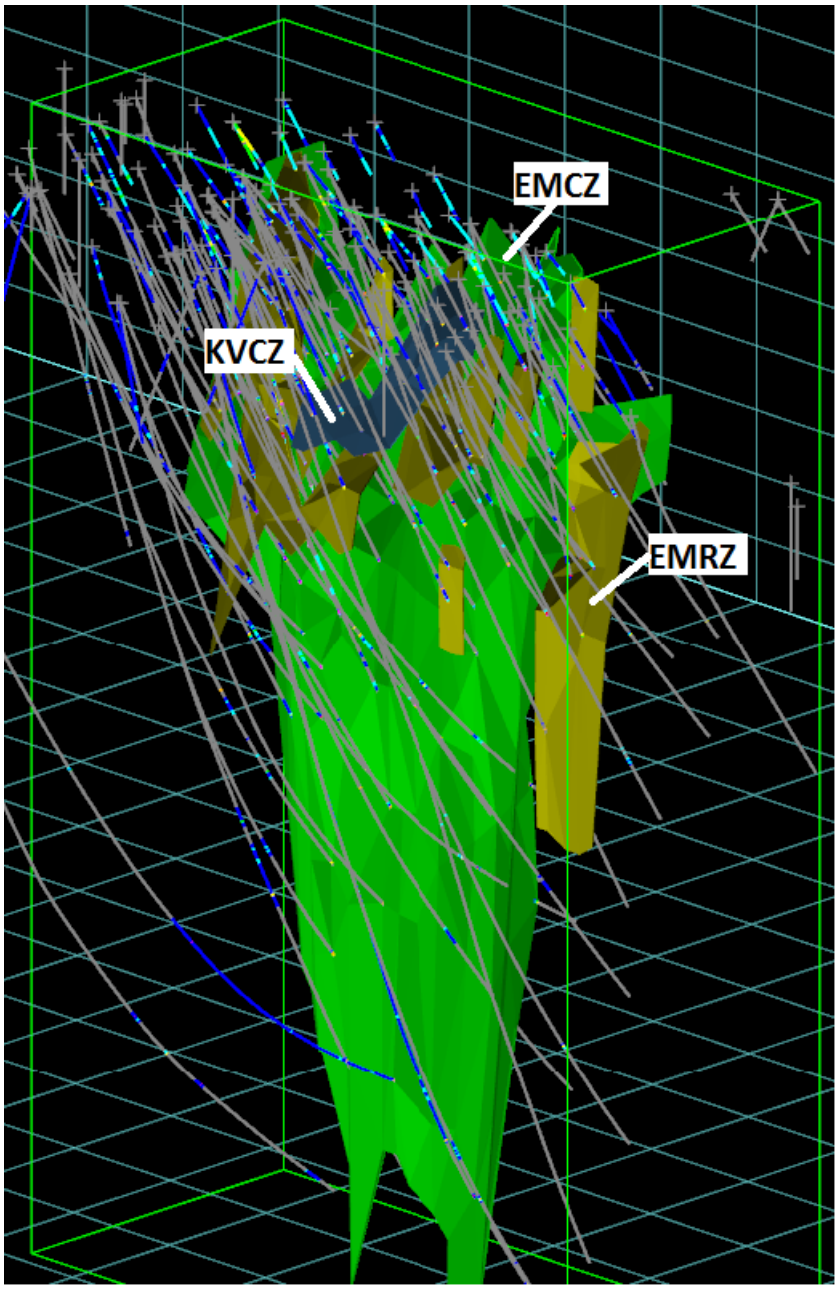
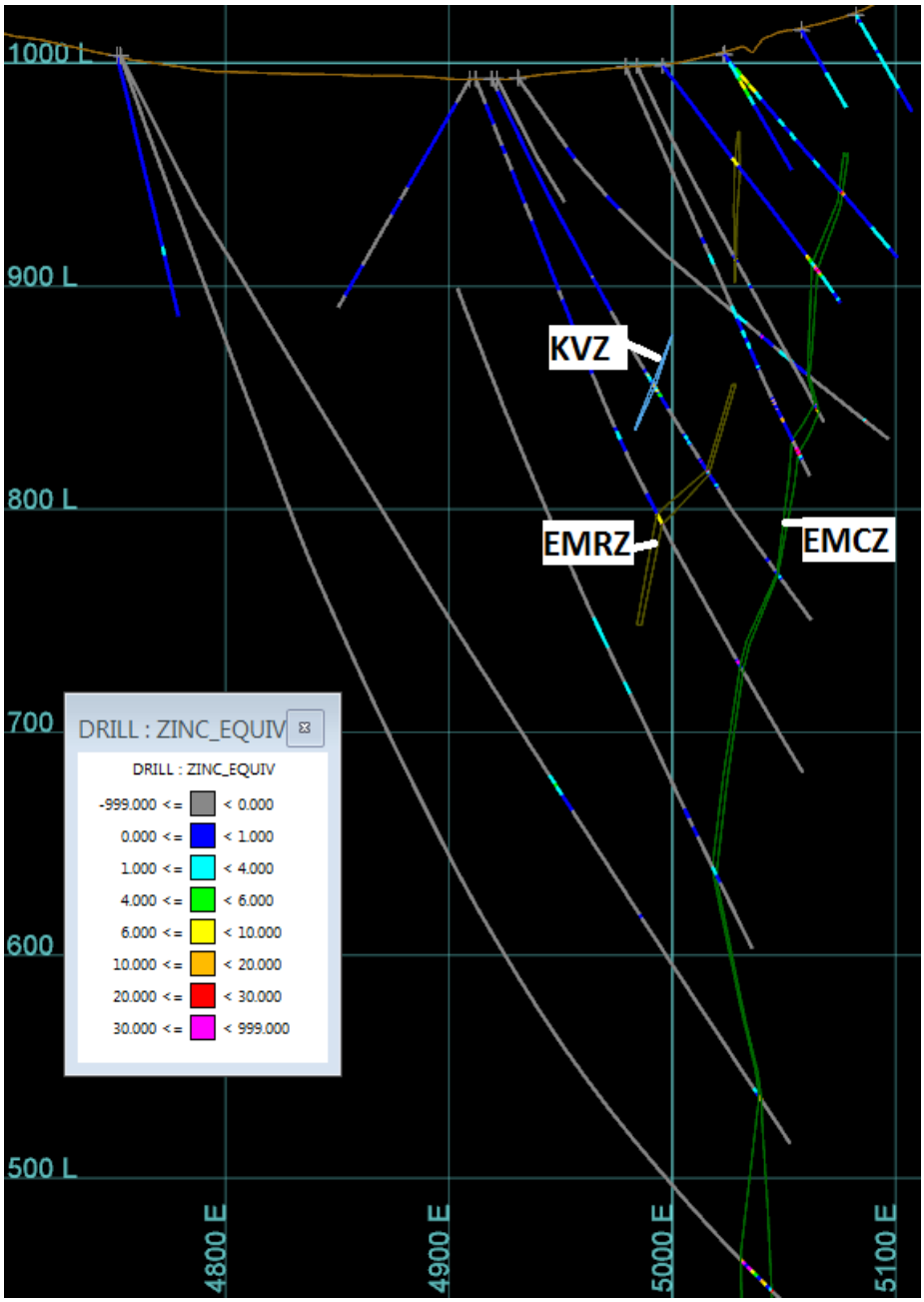


Figure 2.2_3
King Vol Skarn Deposit
Mineralisation Domains - Section 5,900mM



2.3 Data Flagging and Compositing

The drillhole database was coded by the interpreted mineralisation wireframes described in the previous section. Coding was undertaken on the basis that if the individual sample centroid fell within the grade shell boundary it was coded as within the grade shell.

The drillhole database coded within each grade shell was then composited as a means of achieving a uniform sample support. It should be noted, however, that equalising sample length is not the only criteria for standardising sample support. Factors such as angle of intersection of the sampling to mineralisation, sample type and diameters, drilling conditions, recovery, sampling/sub-sampling practices and laboratory practices all affect the 'support' of a sample. Exploration/mining databases which contain multiple sample types and/or sources of data provide challenges in generating composite data with equalised sample support, and uniform support is frequently difficult to achieve.

The lengths of the samples were statistically assessed prior to selecting an appropriate composite length for undertaking statistical analyses, variography and grade estimation. Summary statistics of the sample length **within the mineralisation wireframes** indicates that approximately 62.8% of the samples were collected at 1m intervals or less, 27% were collected at intervals greater than 1m and less than or equal to 2m and the remainder have been sampled at intervals greater than 2m. Inside the wireframes, the mean sampling length is 1.14m.

Outside the mineralised wireframes the mean sampling length is 2.3m. This can be attributed to a number of factors but includes a significant amount of RC drilling and low tenor mineralisation drillcore core which was sampled with much longer intervals.

After consideration of relevant factors relating to geological setting and mining, including potential mining method of long hole open stope, a regular 1m run length (down hole) composite was selected as the most appropriate composite interval to equalise the sample support at King Vol. Compositing was broken when the routine encountered a change in flagging (wireframe boundary) and composites with residual intervals of less than 0.4m were retained by addition to the previous composite resulting in a composite file containing composites between 0.4m and 1.4m in length.

2.4 Statistical Analysis

2.4.1 Descriptive Statistics

Statistical analysis was then undertaken on the composites file generated as described in the previous section. Elements under investigation included Zn, Cu, Ag, Pb and also density. Statistical investigations undertaken included:-

- Analysis of sample lengths and generation of drillhole composites (previously described).
- Statistical analysis of the composite assay data within the wireframed domains.
- Application and effect of upper cuts.
- Assessment of clustering and determination of declustered grade statistics
- Correlation matrices have been calculated for the applicable grades and density.

Summary statistics for each modelled domain are presented in Table 2.4.1_1. The correlation matrices are presented in Table 2.2.1_2. Histogram plots are presented in Figures 2.4.1_1 to 2.4.1_4.

Table 2.4.1_1
King Vol Skarn Deposit
Summary Statistics for the 1m Composites for the Mineralised Domains

Domain EMCZ	**Zn %**	**Cu %**	**Pb %**	**Ag ppm**	**Density**
Count	574	572	574	574	420
Minimum	0.001	0.001	0.001	0.001	2.618
Maximum	49.70	12.00	6.40	795.00	4.19
Mean	**14.22**	**0.83**	**0.27**	**35.67**	**3.21**
Standard Deviation	12.80	1.19	0.64	80.48	0.37
Variance	163.92	1.42	0.42	6,477.53	0.14
Coefficient of Variation	0.90	1.43	2.35	2.26	0.11
Domain EMRZ	**Zn %**	**Cu %**	**Pb %**	**Ag ppm**	**Density**
Count	194	192	194	194	137
Minimum	0.01	0.004	0.001	0.01	2.623
Maximum	46.5	5.8	20.7	937	4.217
Mean	**9.79**	**0.86**	**2.38**	**71.10**	**3.23**
Standard Deviation	10.73	1.18	4.10	125.02	0.34
Variance	115.09	1.39	16.82	15,629.46	0.12
Coefficient of Variation	1.10	1.37	1.72	1.76	0.11
Domain KVZ	**Zn %**	**Cu %**	**Pb %**	**Ag ppm**	**Density**
Count	19	19	19	19	16
Minimum	0.399	0.024	0.76	2.2	2.6
Maximum	19.70	1.73	10.70	392.00	3.43
Mean	**6.29**	**0.62**	**3.25**	**46.78**	**3.12**
Standard Deviation	4.97	0.43	2.63	85.74	0.22
Variance	24.68	0.19	6.90	7,351.39	0.05
Coefficient of Variation	0.79	0.69	0.81	1.83	0.07

Table 2.4.1_1

King Vol Skarn Deposit

Correlation Matrices for the 1m Composites for the Mineralised Domains

Domain EMCZ	Zn %	Cu %	Pb %	Ag ppm	Density
Zn %	1	0.596	-0.125	0.39	0.854
Cu %	0.596	1	-0.055	0.635	0.641
Pb %	-0.125	-0.055	1	0.434	-0.108
Ag ppm	0.39	0.635	0.434	1	0.854
Density	0.854	0.641	-0.108	0.428	1
Domain EMRZ	**Zn %**	**Cu %**	**Pb %**	**Ag ppm**	**Density**
Zn %	1	0.385	0.301	0.32	0.736
Cu %	0.385	1	0.503	0.737	0.538
Pb %	0.301	0.503	1	0.878	0.477
Ag ppm	0.32	0.737	0.878	1	0.533
Density	0.736	0.538	0.477	0.533	1
Domain KVZ	**Zn %**	**Cu %**	**Pb %**	**Ag ppm**	**Density**
Zn %	1	0.108	0.979	-0.333	0.597
Cu %	0.108	1	0.099	0.005	0.104
Pb %	0.979	0.099	1	-0.273	0.584
Ag ppm	-0.333	0.005	-0.273	1	-0.687
Density	0.597	0.104	0.584	-0.687	1

Figure 2.4.2_1
Zone EMCZ - Histograms

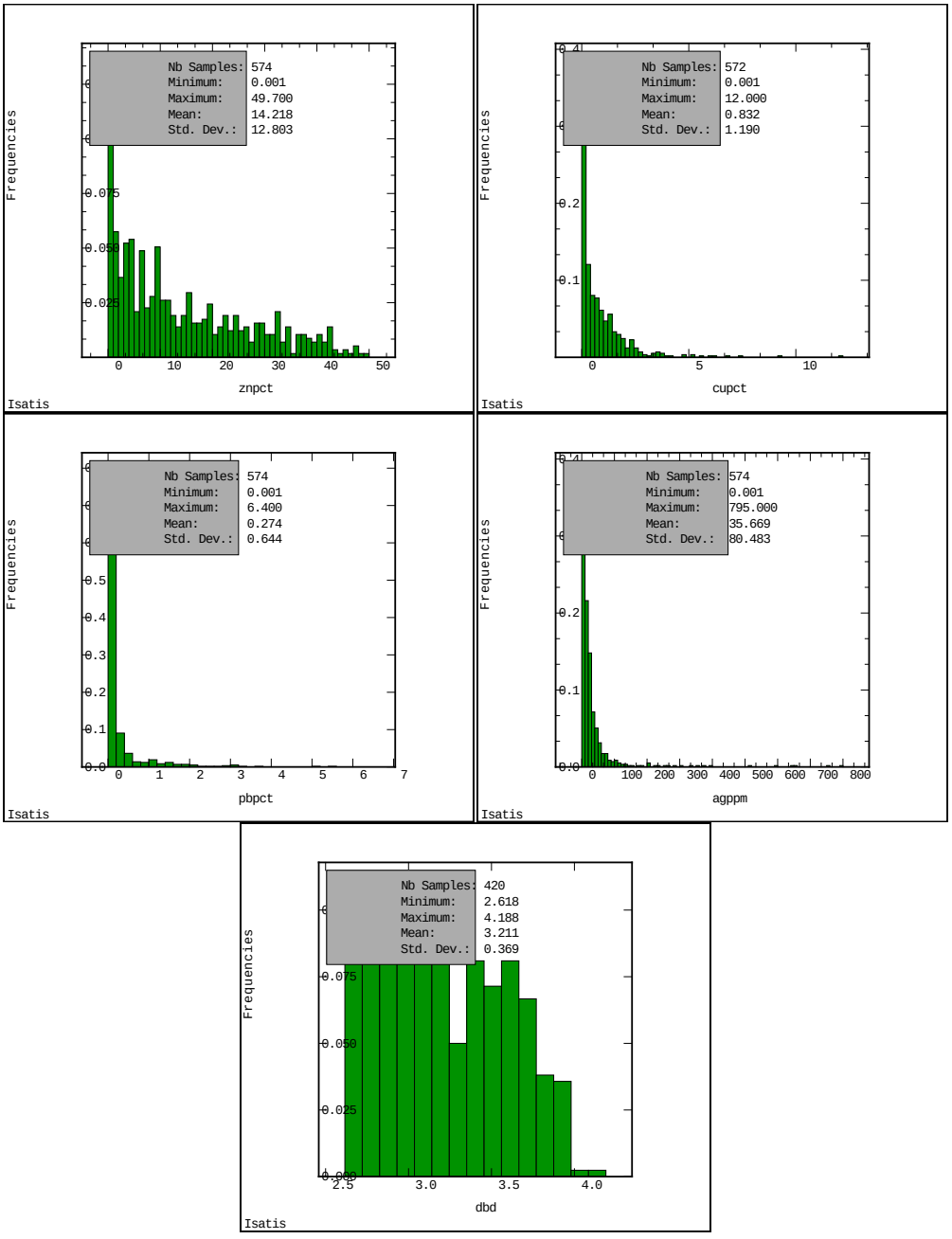


Figure 2.4.2_1
Zone EMRZ - Histograms

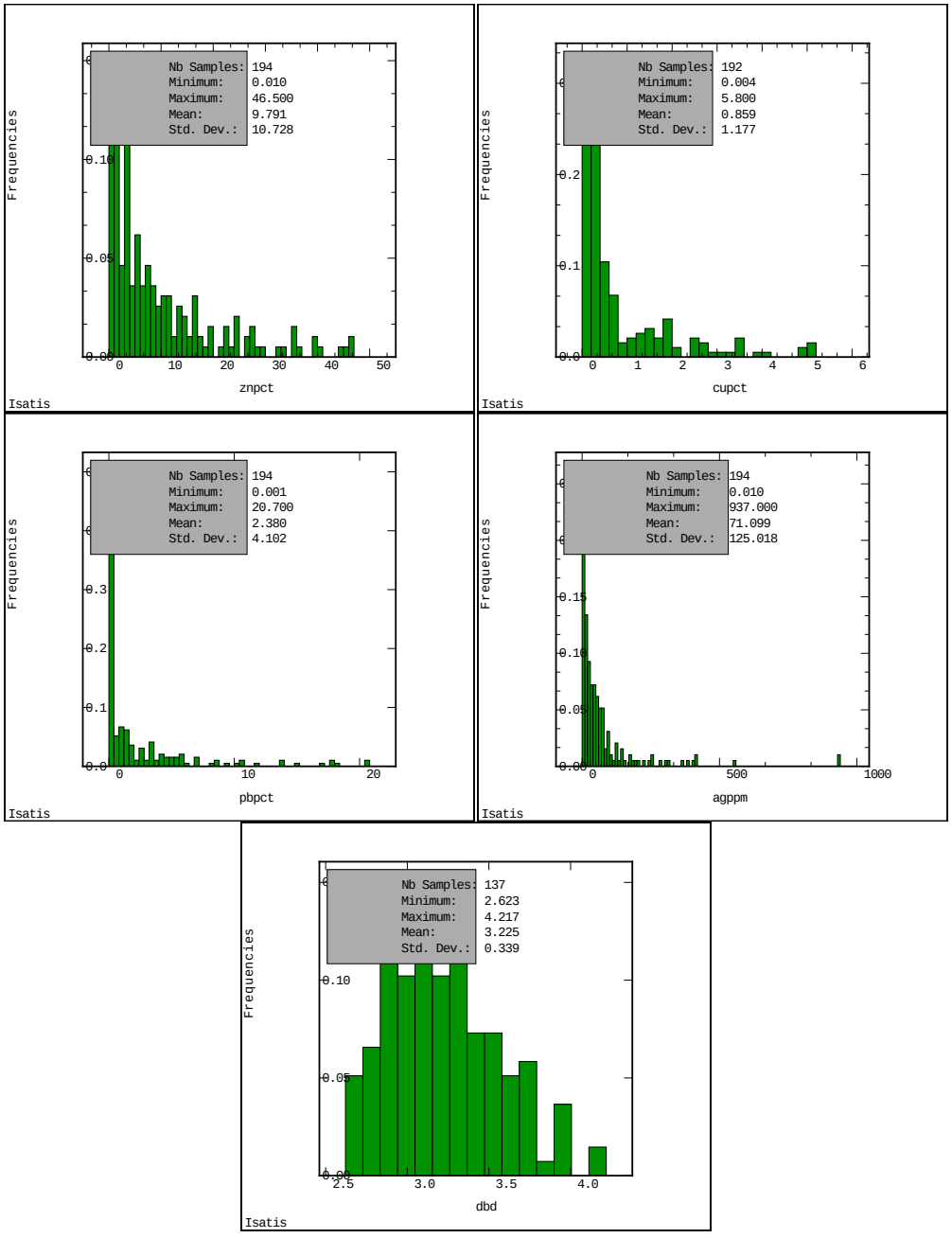
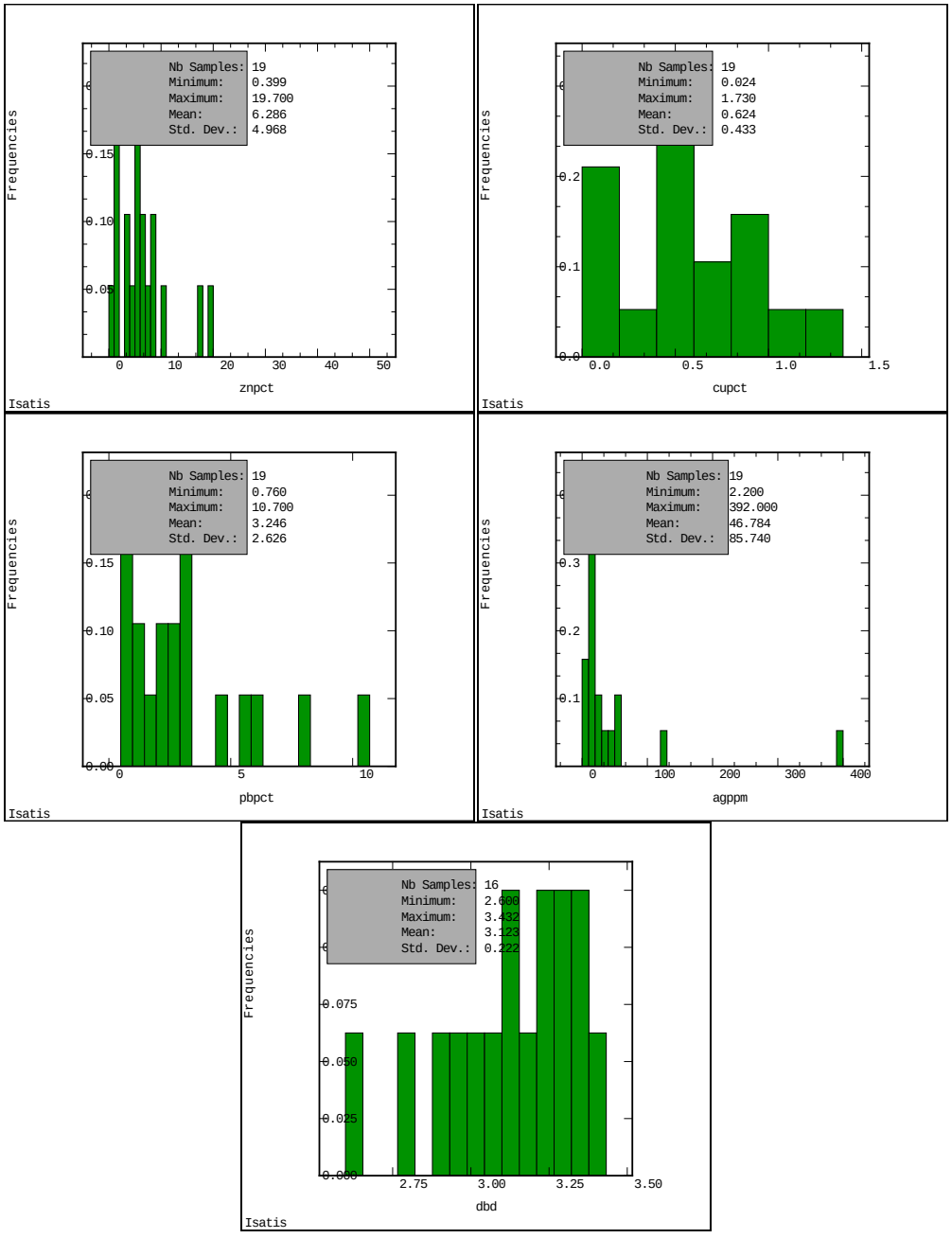


Figure 2.4.2_1
Zone KVZ - Histograms



2.4.2 Cell declustering analysis

Visual inspection of the available datasets for each of the estimation domains indicates potential clustering of the data within higher grade regions of the deposit. For instance, data clustering may occur when drilling campaigns are selectively targeted on higher grade regions of the deposit and results in an artificially high mean in many cases. As such, declustering was reviewed to investigate any effects of preferential sampling of high grade areas that may have occurred.

Cell declustering was completed with weights (wi) determined thus:- to compute the weight wi attached to a target sample i, the process simply counts the number (ni) of samples inside a moving window centered on this target sample. The weight, wi, is equal to mv/ni where mv is the mean of all the samples (ni) inside the moving window.

Declustered composite statistics for Domain EMCZ are presented in Table 2.4.2_1. Declustered means vary according to the element under investigation with some being higher than the raw mean and some being lower. The effect is generally negligible with silver being the exception. The inference is that kriged silver grades are expected to be lower than the input composite grade and this is later found to be the case.

Following this summary investigation it was concluded that drilling is essentially not clustered at King Vol and any effect of declustering is negligible.

Table 2.4.2_1
King Vol Skarn deposit
Summary Statistics for the Declustered 1m Composites

Zone EMCZ	Zn %	Cu %	Pb %	Ag ppm
Count	574	572	574	574
Minimum	0.001	0.001	0.001	0.001
Maximum	49.7	8	6.4	795
Mean	**14.23**	**0.76**	**0.29**	**28.52**
Raw Mean	**14.22**	**0.83**	**0.28**	**35.67**
Standard Deviation	11.84	0.98	0.62	56.56
Variance	140.19	0.95	0.38	3198.67
Coefficient of Variation	0.83	1.28	2.14	1.98

2.4.3 High Grade Outlier Analysis

OK is an appropriate method to estimate the grades for the King Vol Skarn Deposit as previously described. However, some the grade datasets for the various estimation domains are characterised by moderate CV values (Table 2.4.1_1), indicating that high-grade values may contribute significantly to the mean grades reported for the various datasets.

The effects of the highest grade composites on the mean grade and standard deviation of the various datasets for each of the estimation domains have been investigated by compiling and reviewing statistical plots (histograms and probability plots). The resultant plots were reviewed together with probability plots of the sample populations. It was determined that upper cuts are largely not necessary. An upper cut for copper in the EMCZ and silver in the EMRZ was chosen coinciding with a pronounced inflection or increase in the variance of the data. Composite data was viewed in 3D to determine the clustering or otherwise of these highest grades observed in each domain to assess the appropriateness of the high grade cut. Clustering of the highest grades in one or more particular areas may indicate that the grades do not require to be cut and need to be dealt with in a different way. A list of the determined upper cuts applied and their impact on the mean grades of the datasets is provided in Table 2.4.3_1

Table 2.4.3_1
King Vol Skarn deposit
Summary Statistics for the top cut, 1m Composites

Sub-Domain	EMCZ Cu %	EMRZ Ag ppm
Count	572	194
Minimum	0.001	0.01
Maximum	8	420
Mean	**0.82**	**65.05**
Standard Deviation	1.12	92.30
Variance	1.25	8518.56
Coefficient of Variation	1.36	1.42

2.5 Variography

2.5.1 Introduction

Variography is used to describe the spatial variability or correlation of an attribute (gold, silver etc). The spatial variability is traditionally measured by means of a variogram, which is generated by determining the averaged squared difference of data points at a nominated distance (h), or lag (Srivastava and Isaacs, 1989). The averaged squared difference (variogram or γ(h)) for each lag distance is plotted on a bivariate plot, where the X-axis is the lag distance and the Y-axis represents the average squared differences (γ(h)) for the nominated lag distance.

Several types of variogram calculations are employed to determine the directions of the continuity of the mineralisation:

- Traditional variograms are calculated from the raw assay values.
- Log-transformed variography involves a logarithmic transformation of the assay data.
- Gaussian variograms are based on the results after declustering and a transformation to a Normal distribution.
- Pairwise-relative variograms attempt to 'normalise' the variogram by dividing the variogram value for each pair by their squared mean value.
- Correlograms are 'standardized' by the variance calculated from the sample values that contribute to each lag.

Fan variography involves the graphical representation of spatial trends by calculating a range of variograms in a selected plane and contouring the variogram values. The result is a contour map of the grade continuity within the domain.

The variography was calculated and modelled in the geostatistical software, Isatis. Modelled variograms were generally shown to have good structure and were used throughout the OK estimation and also were used for the change of support process.

2.5.2 King Vol Skarn Deposit Variography

Grade and variography was generated to enable grade estimation via OK. In addition, Gaussian variograms were also examined as part of the process. Variograms were modelled for all elements and density in the EMCZ and EMRZ domains. For the KVZ, insufficient composites exist to allow high confidence variogram calculation and modelling and modelled variograms for the EMRZ were adopted. Interpreted anisotropy directions correspond well with the modelled geology and overall geometry of the interpreted domains.

2.5.3 EMCZ

Grade variography shows moderate to good structure and displays moderate anisotropy between the major and semi-major axes. The exception is silver, where an omnidirectional variogram has been calculated and modelled. Two spherical models have been fitted to the experimental variograms, with the variograms exhibiting low relative nugget effects (calculated by dividing the nugget variance by the sill variance) and this is to be expected for this type of deposit. The overall ranges fitted are considered within expectations and relate to the overall spacing and type of drilling.

The interpreted major direction of continuity dips at 85º towards 275º and this relates well to visual trends observed in the data. The modelled grade variogram plots are provided in Figure 2.5.3_1 and tabulated in Table 2.5.3_1.

2.5.4 EMRZ

Grade variography again shows good structure and displays moderate anisotropy between the major and semi-major axes. Two spherical models have been fitted to the experimental variograms, with the variograms exhibiting a low relative nugget effect (calculated by dividing the nugget variance by the sill variance) similar to the EMCZ.

The interpreted major direction of continuity dips at 0º towards 100º with the semi major direction dipping at 30º towards 10º. . Table 2.5.3_1 presents the fitted grade variogram models while the grade variogram plots are provided in Figure 2.5.4_1.

2.5.5 King Vol Zone

Grade variography has been adopted from the EMRZ for the purposes of OK grade estimation. This is deemed appropriate given the similarities with the EMRZ from a statistical viewpoint.

Figure 2.5.3_1
King Vol Gold Project
EMCZ – Grade Variogram

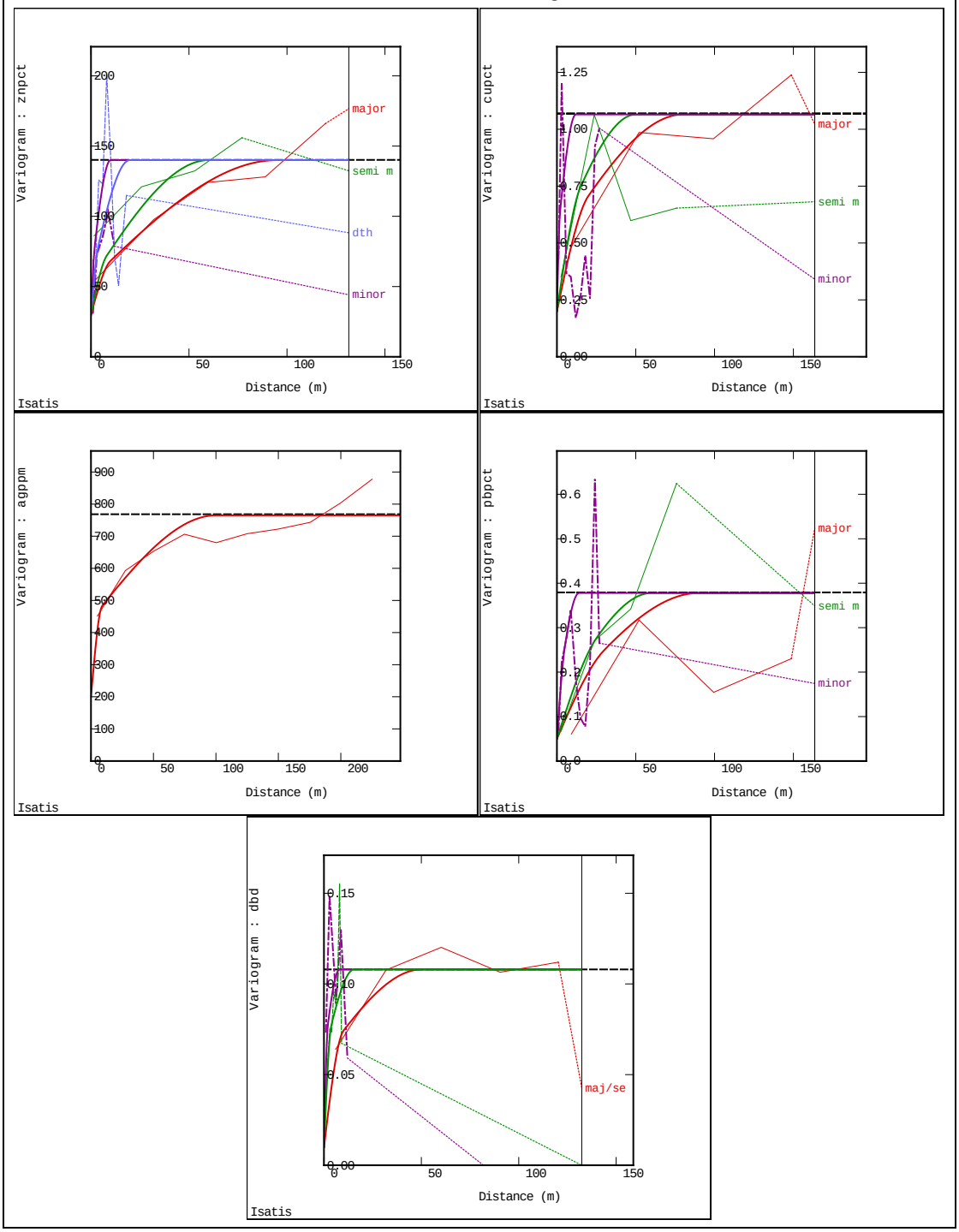


Figure 2.5.4_1
King Vol Gold Project
EMRZ – Grade Variogram

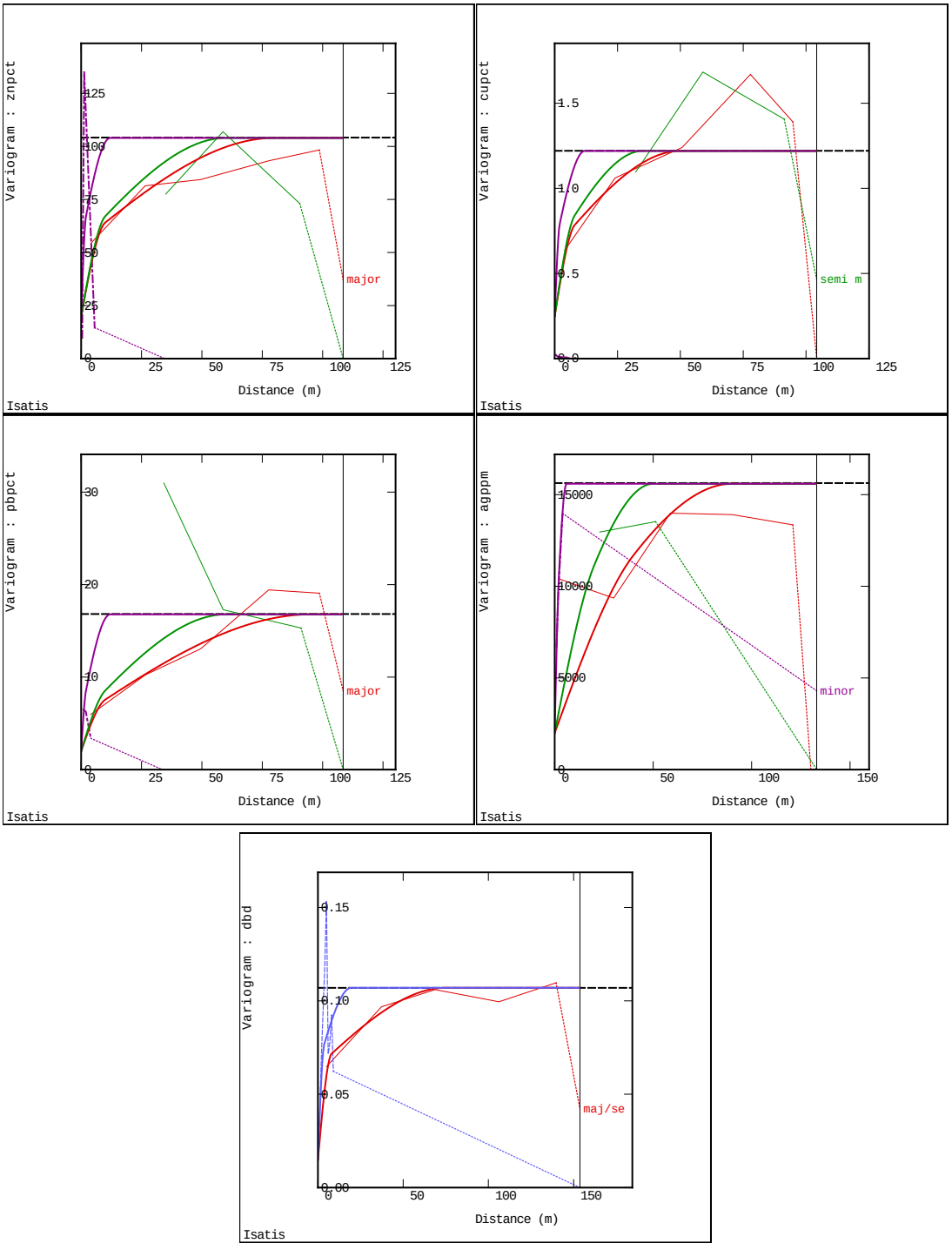


Table 2.5.3_1
King Vol Skarn Deposit
Grade Variogram Models

Domain	Variable	Nugget (C0)	Rotation (degrees)			Structure 1				Structure 2			
						Sill 1 (C1)	Range (m)			Sill 2 (C2)	Range (m)		
			Bearing	Plunge	Dip		Major	Semi Major	Minor		Major	Semi Major	Minor
EMCZ	Zn	30	5°	90°	-85°	25	10	8	2	85	95	60	10
	Cu	0.2	5°	90°	-85°	0.3	20	15	2	0.57	80	50	12
	Pb	0.05	5°	90°	-85°	0.08	30	25	5	0.25	90	60	14
	Ag	200	5°	90°	-85°	240	9	9	9	325	100	100	100
	Density	0.01	5°	90°	-85°	0.05	10	10	2	0.05	50	50	8
EMRZ	Zn	20	5°	90°	-85°	35	10	10	2	49	80	60	12
	Cu	0.25	5°	90°	-85°	0.4	8	8	2	0.57	50	35	12
	Pb	2	5°	90°	-85°	3.85	10	10	2	10.9	95	60	12
	Ag	2000	5°	90°	-85°	3250	40	20	2	10340	90	50	6
	Density	0.015	5°	90°	-85°	0.05	8	8	2	0.04	75	75	10
KVZ	Zn	20	5°	90°	-85°	35	10	10	2	49	80	60	12
	Cu	0.25	5°	90°	-85°	0.4	8	8	2	0.57	50	35	12
	Pb	2	5°	90°	-85°	3.85	10	10	2	10.9	95	60	12
	Ag	2000	5°	90°	-85°	3250	40	20	2	10340	90	50	6
	Density	0.015	5°	90°	-85°	0.05	8	8	2	0.04	75	75	10

2.6 Block Model

A 3-D block model was created based on the Local grid. The parent block size was selected on the basis of the average drill spacing in consideration of mineralised bodies dimension with a parent cell size of 5m E by 10mN by 5m RL which was sub-blocked down to 0.625m E by 1.25m N by 0.625m RL (to ensure adequate volume representation of the often narrow mineralisation). The model covered all the interpreted mineralisation zones and included suitable additional waste material to allow later stope optimisation studies. Block coding was completed on the basis of the block centroid, wherein a centroid falling within any wireframe was coded with the wireframe solid attribute. No rotation was applied to the block model.

The main block model parameters are summarised below in Table 2.6_1. Variables were coded into the block model to enable ordinary kriging estimation and subsequent grade tonnage reporting. A visual review of the wireframe solids and the block model indicated correct flagging of the block model. Additionally a check was made of coded volume versus wireframe volume which confirmed the above.

Table 2.6_1
King Vol Polymetallic Base Metal Deposit
Block Model Parameters

	Easting (X)	Northing (Y)	RL (Z)
Min. Coordinates	4,925	4,700	150
Max Coordinates	5,185	5,260	1050
Block size (m)	5	10	5
Sub Block size (m)	0.625	1.25	0.625
Rotation	0°	0°	0°

2.7 Bulk Density Data

A bulk density database has been supplied containing a total of 573 data within mineralised wireframes (Section 2.4.1, Table 2.4.1_1). Statistics and variography have been calculated and modelled and the data is considered sufficient and of a high enough quality to enable estimation via Ordinary Kriging.

2.8 Grade Estimation

2.8.1 Introduction

Resource estimation for the King Vol Skarn Deposit mineralisation was completed using OK within the defined mineralisation wireframes. Grade estimation was carried out using the Vulcan mining software package.

2.8.2 Estimation Parameters

OK estimates were completed for EMCZ, EMRZ and KVZ using the grade variogram models, and a set of ancillary parameters controlling the source and selection of composite data. The sample search parameters were defined based on the variography and the data spacing, and a series of sample search tests performed in Isatis geostatistical software.

The sample search parameters are provided in Table 2.8.2_1. Hard domain boundaries were used for the estimation throughout. A two-pass estimation strategy was applied to each domain, applying a progressively expanded and less restrictive sample search to the successive estimation pass, and only considering blocks not previously assigned an estimate. Parent cell estimations (5m E by 10mN by 5m RL) were applied throughout and discretisation was applied on the basis of 3X by 3Y by 3RL for 27 discretisation points per block.

2.8.3 Estimate Validation

All relevant statistical information was recorded to enable validation and review of the OK estimates. The recorded information included:

- Number of samples used per block estimate.
- Average distance to samples per block estimate.
- Estimation flag to determine in which estimation pass a block was estimated.
- Number of drillholes from which composite data were used to complete the block estimate.

The estimates were reviewed visually and statistically prior to being accepted. The review included the following activities:

- Comparison of the OK estimate versus the mean of the composite dataset, including weighting where appropriate to account for data clustering.
- Visual checks of cross sections, long sections, and plans.
- Swath plots of input grade versus block grade (See Figure 2.8.3_1 for swath plots relating to Domain EMCZ).

Alternative estimates were also completed to test the sensitivity of the reported model to the selected OK interpolation parameters. An insignificant amount of variation in overall grade was noted in the alternate estimations.

Table 2.8.2_1

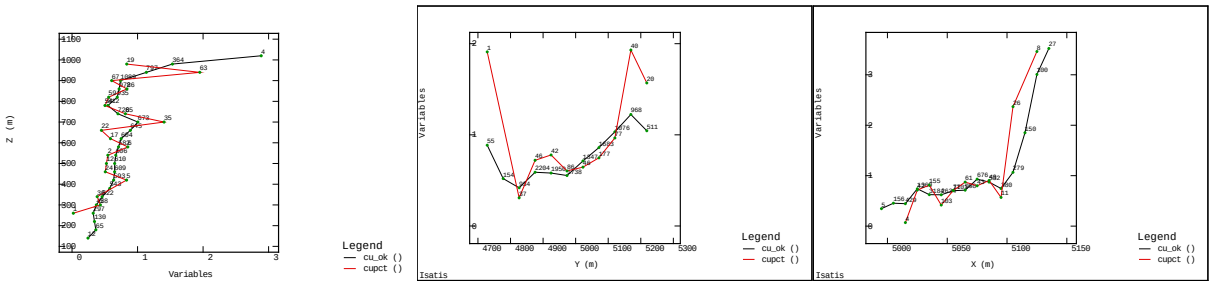
King Vol Skarn Deposit

Ordinary Kriging Sample Search Parameters

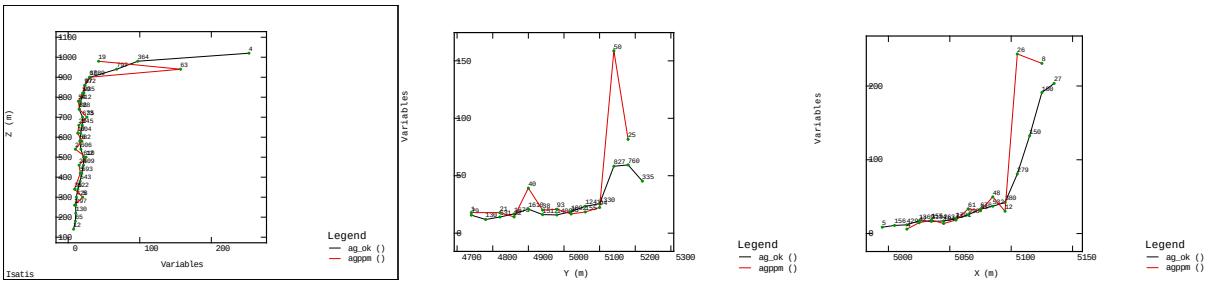
Zone	Estimation Pass	Rotation			Search Distance			Min. No. of Comp.	Max. No. of Comp.	Max. No. of Comp. per Hole
		Major	Semi Major	Minor	X	Y	Z			
All	1	5	90	-85	100	100	20	8	12	3
	2	5	90	-85	300	300	100	6	12	-

Figure 2.8.4_1
King Vol Skarn Deposit
Domain EMCZ Swath Plots

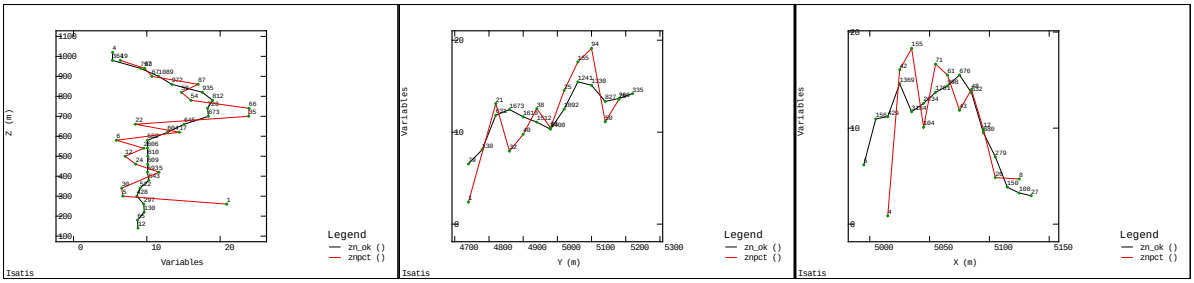
Copper



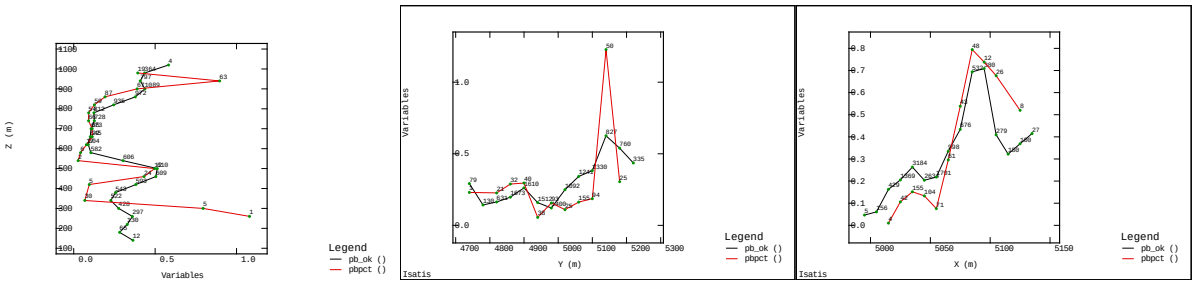
Silver



Zinc



Lead



2.9 Assay Laboratory and QAQC Review

Data has been made available for the re-assaying program completed in July 2014. A total of 66 standards or Certified Reference Material have been inserted by Mungana into the sample stream. Additionally a total of 29 blanks have also been inserted. A total of 16 pulp duplicates also have been assayed where the pulp has been split in two and each half assayed. Results are considered acceptable to permit categorisation of grade and density estimates.

2.10 Resource Classification

The resource estimate for the King Vol Skarn deposit has been categorised in accordance with the criteria laid out in the JORC Code (2012). Indicated and Inferred Mineral Resources were defined during the validation of the grade estimates, with detailed consideration of the categorisation guidelines.

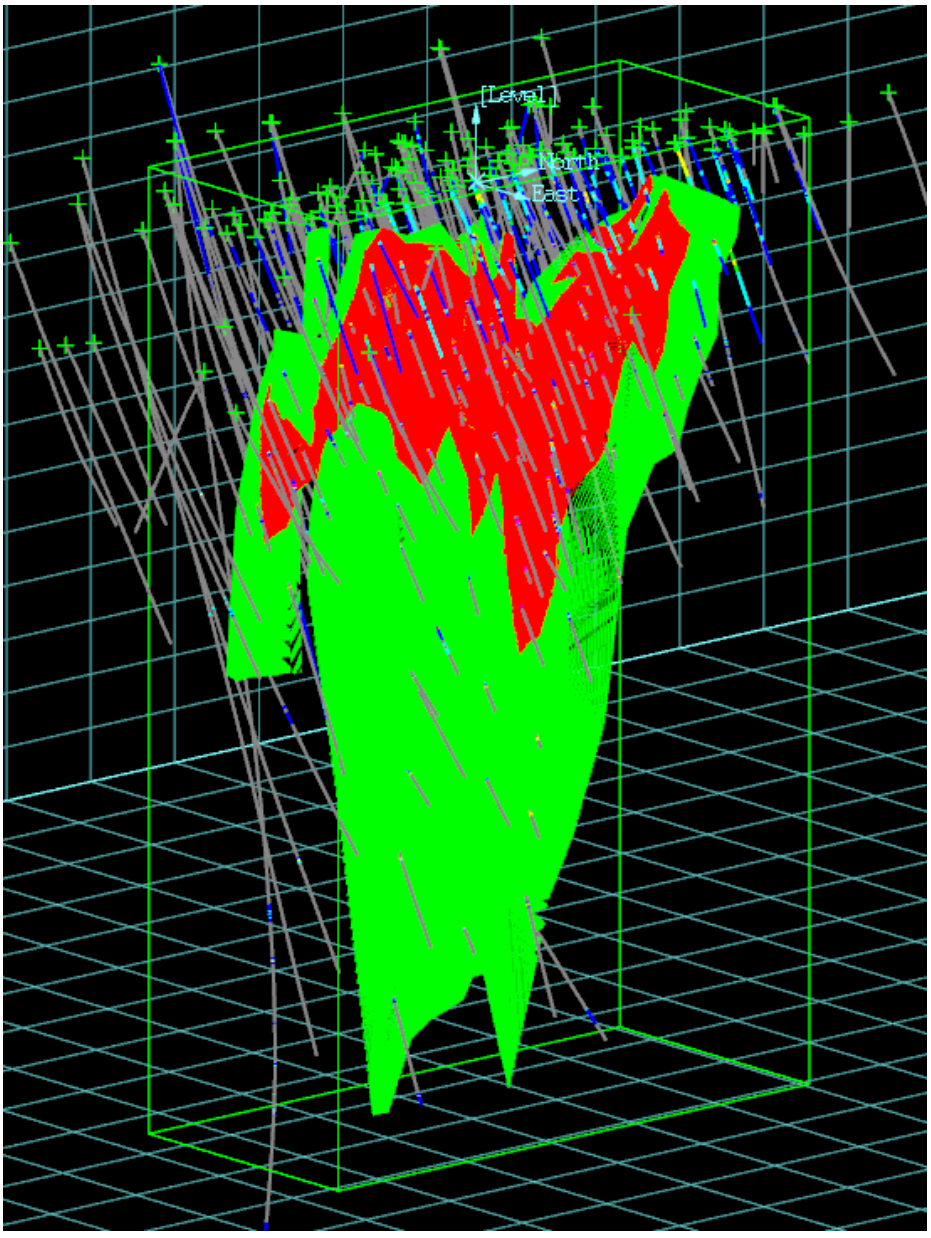
Blocks were classified as follows:

- Indicated Mineral Resources based upon regions which had well established geological continuity and a nominal data spacing of 25m by 25m.
- Blocks not classified as Indicated Mineral Resources and which had a reasonable geological continuity and a nominal data spacing of 100m by 100m were classified as Inferred Mineral Resources.

The classification of the Mineral Resources was based on the confidence level of the key criteria that were considered during resource classification as presented in JORC Table 1 (Appendix 1 to this report). . The classification scheme applied is illustrated in Figure 2.9_1 (isometric view from SW).

Figure 2.9_1

King Vol Polymetallic base metal deposit
Drillhole Location and Classification
Note: Red = Indicated, Green = Inferred



2.11 Resource Reporting

The resource estimate for the King Vol Skarn Deposit, is summarised in Table 2.11_1 below.

Table 2.10_1

King Vol Skarn Deposit
December 2014 Resource Estimate

Ordianry Kriged Estimate

(Parent Cell Dimensions of 5mE by 10mN by 5mRL, SMU correction using 12.5mE x 6.25mN x 5mRL

Category	Tonnage (Mt)	Grade Zn %	Grade Cu %	Grade Pb %	Grade Ag g/t	Metal Zn kt	Metal Cu kt	Metal Pb t	Metal Ag Moz
Indicated	1.045	14.7	0.9	0.7	36.5	154	9	7	1.23
Inferred	1.943	10.4	0.7	0.5	26.4	202	13	10	1.65

Note: Figures have been rounded

The deposit is still open down-dip and further drilling may be required to realise the full extent of mineralisation. No mining apart from some very minor surficial activity has been undertaken at King Vol Skarn deposit to date.

Appendix 1

ASX Announcement January 28th 2014

JORC Tables etc

Company Announcement Office
Australian Stock Exchange Ltd
4th Floor, 20 Bridge Street, Sydney NSW

ASX code: MUX

KING VOL RESOURCE ESTIMATE UPDATE

HIGHLIGHTS

- **Updated JORC 2012 compliant Mineral Resource estimate completed for the high grade King Vol zinc deposit, North Queensland comprising:**
  - ***Indicated Resource of 1.045Mt grading 14.7%Zn, 0.9%Cu, 0.7%Pb and 36.5g/t Ag, containing 154Kt of zinc, 9Kt of copper, 7Kt of lead and 1.23Moz of silver***
  - ***Inferred Resource of 1.943Mt grading 10.4%Zn, 0.7%Cu, 0.5%Pb and 26.4g/t Ag, containing 202Kt of zinc, 13Kt of copper, 10Kt of lead and 1.65Moz of silver***
- **Mineral Resource based on 193 intersections from 108 drill holes (86% of intersections are diamond core and 14% RC)**
- **Resource remains open at depth and along strike to the north**

Mungana Goldmines Limited (ASX: MUX) is pleased to announce an update of the King Vol Mineral Resource estimate. The Resource estimate was undertaken by independent geological consultants International Resource Solutions based in Perth. The King Vol deposit is part of the Chillagoe base metals project that MUX purchased from the liquidators of Kagara Ltd (KZL) in July 2014.

The King Vol Mineral Resource estimate is set out in Table 1 below.

	King Vol Mineral Resource - January 2015								
		Grade				Contained Metal			
	Tonnes (Mt)	Zn%	Cu%	Pb%	Ag g/t	Zn (kt)	Cu (kt)	Pb (kt)	Ag (Moz)
Indicated	1.045	14.7	0.9	0.7	36.5	154	9	7	1.23
Inferred	1.943	10.4	0.7	0.5	26.4	202	13	10	1.65
Total	**2.988**	**11.9**	**0.8**	**0.6**	**29.9**	**356**	**22**	**17**	**2.88**

Table 1 – King Vol Mineral Resource (Geologically constrained, not reported to cut-off)

Whilst no new drilling has been carried out by MUX since purchasing the project, several batches of sample pulps were re-assayed to comply with QAQC protocols and density measurements were undertaken on some diamond core.

The Mineral Resource estimate has been completed in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition. A summary of information used in the King Vol Mineral Resource estimate is provided in Appendix 1.

The high grade King Vol zinc deposit, which is located 25km from a partially completed base metals concentrator, is a key asset within MUX's Chillagoe base metals project and will underpin the company's zinc development strategy in North Queensland.

Mungana Goldmines Chairman, Mr John Fitzgerald, said the completion of the updated Mineral Resource represented another important step in the company's North Queensland zinc strategy.

"The completion of the King Vol updated Mineral Resource enables us to move forward with design and optimisation work to assess the best way to develop this exceptional high grade zinc deposit."
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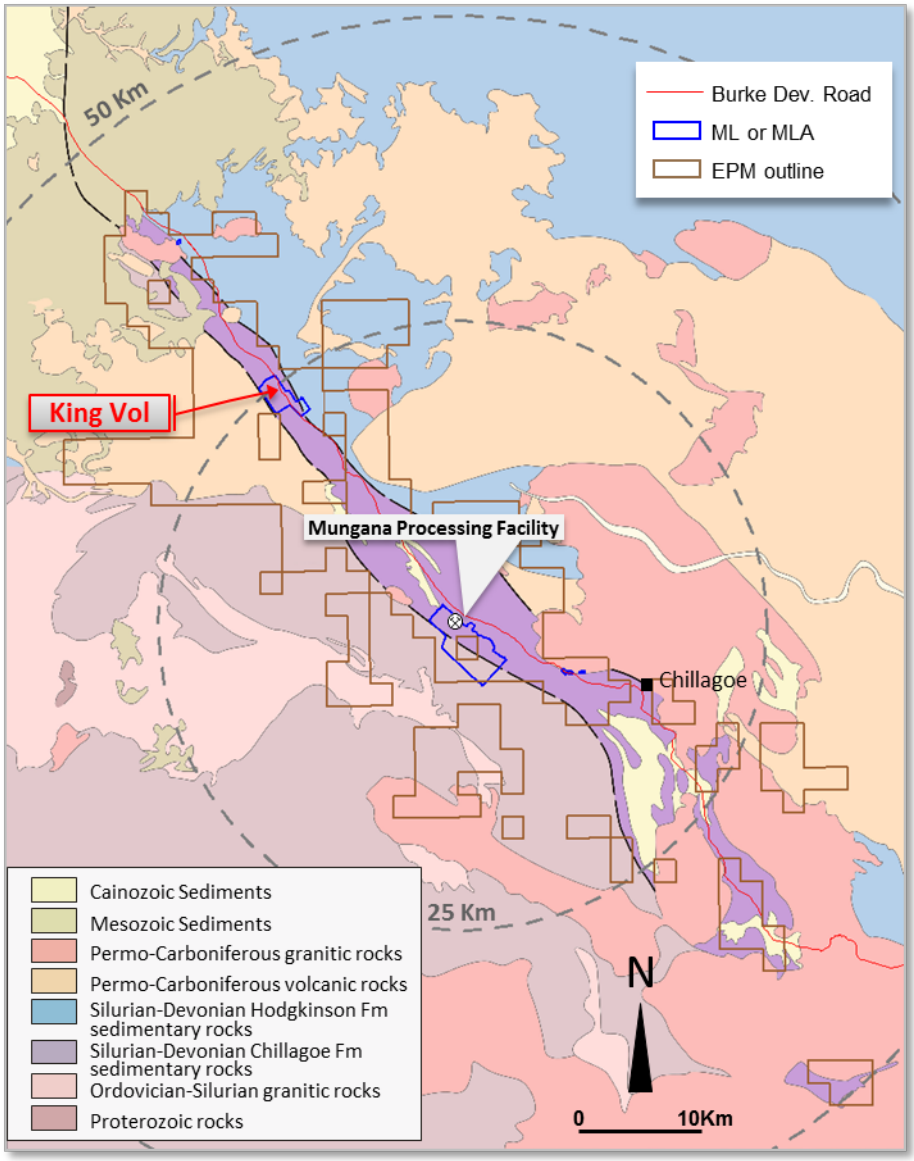

Figure 1 – King Vol Location Plan

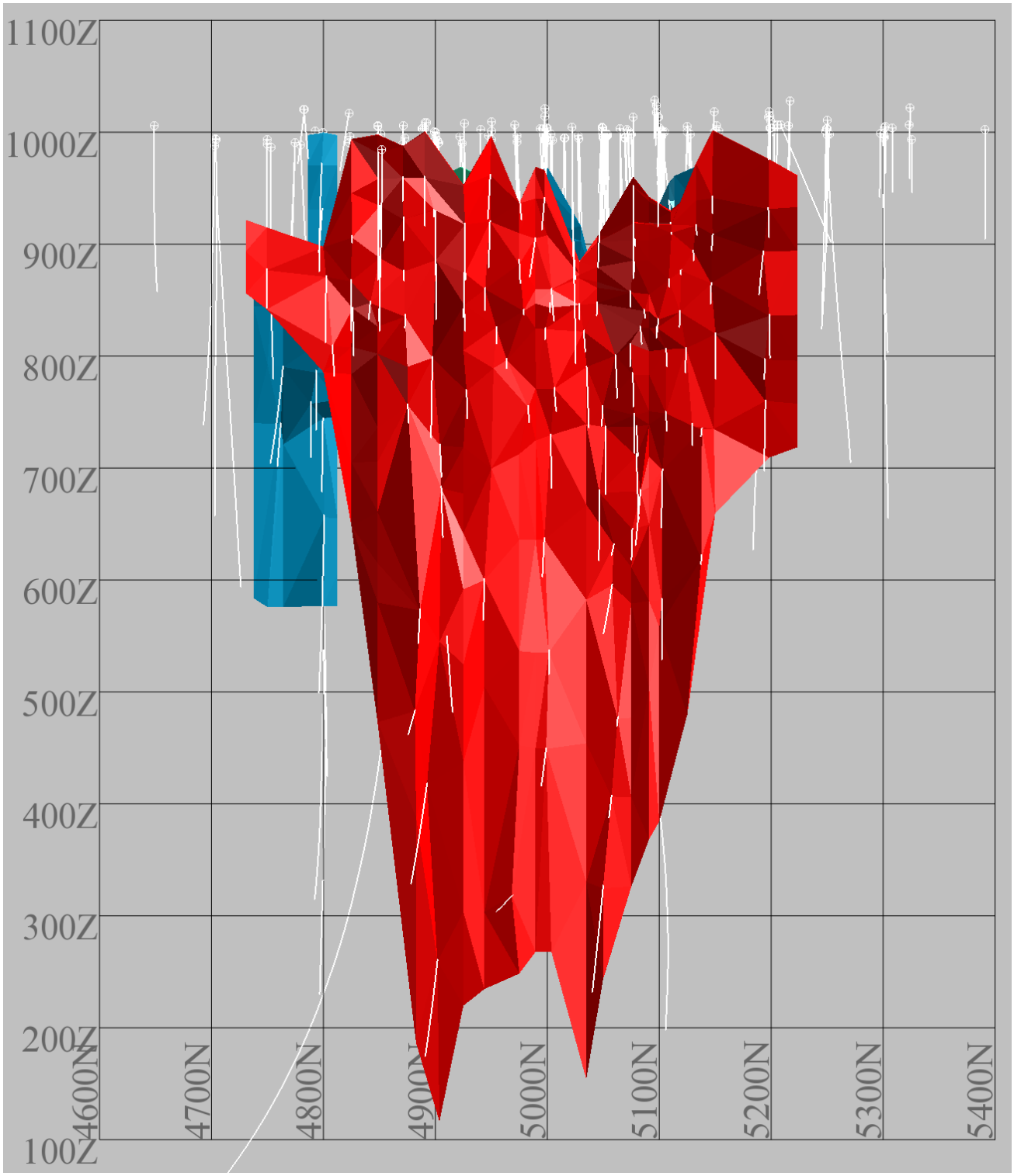

Figure 2 – Long Section of the King Vol deposit showing drill traces

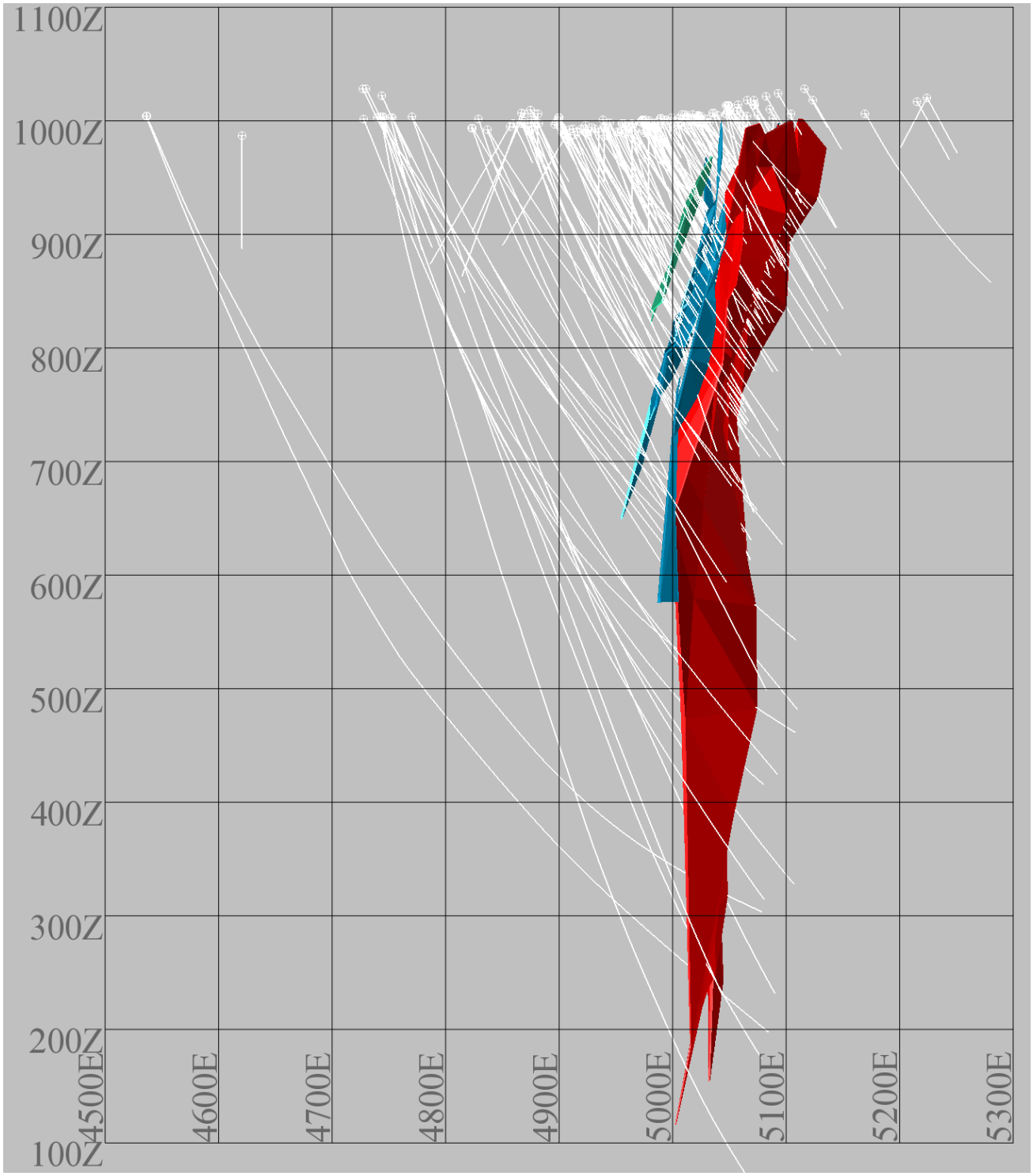

Figure 3 – Cross Section of the King Vol deposit showing drill traces

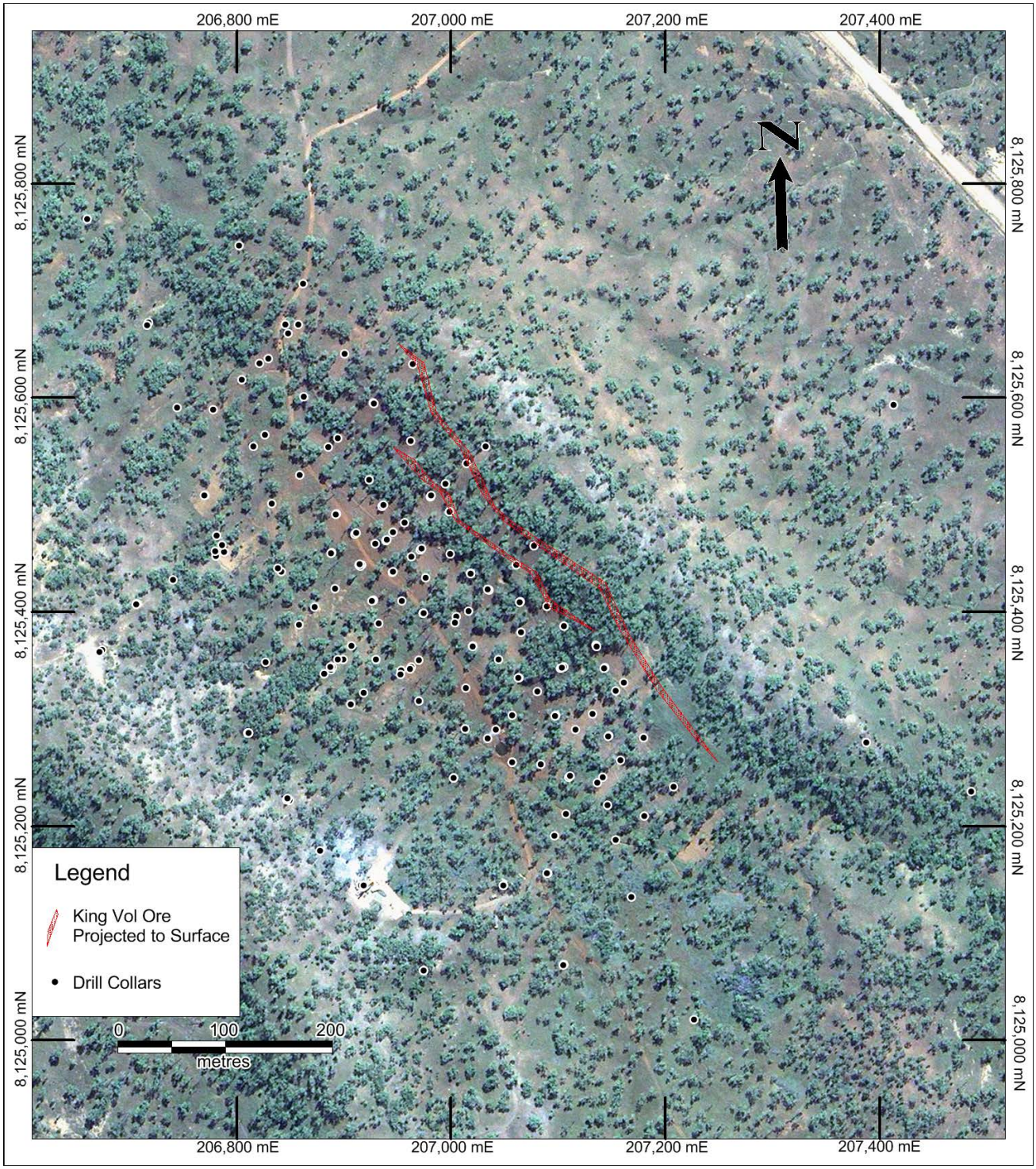

Figure 4 – Collar Locations for King Vol Project

Competent Person's Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Brian Wolfe. Mr Wolfe is a member of the Australasian Institute of Geoscientists (AIG) and has sufficient experience 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 (the "JORC Code"). Mr Wolfe is a full time employee of International Resource Solutions Pty Ltd and is acting as a consultant to Mungana Goldmines Ltd. Mr Wolfe consents to the inclusion in this report of the Mineral Resources in the form and context in which they appear.

ENDS

For further information:

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SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code Explanation	Commentary
Sampling techniques	*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.*	The King Vol deposit has been sampled using diamond core (DD) and Reverse Circulation (RC) percussion drilling. Drilling has been carried out on a nominal 25m x 25m grid spacing with 12.5m spacings in high priority areas and broader spacings at depth. A total of 15 RC and 87 DD holes (NQ and HQ)totalling 1,965m and 23,467m respectively, were utilised in the King Vol resource estimate. All holes were drilled towards an azimuth of approximately 40 degrees magnetic (local grid east) to avoid drilling through the barren chert, at an average dip of -63.6 degrees in order to intersect the steep westerly dipping ore zones at the most optimal angle.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Collar locations for historical holes and Kagara holes up to 2007 were picked-up by licensed surveyors using a Differential GPS. Post 2007 collar locations were picked-up by Kagara staff surveyors using a Trimble RTK GPS unit, or using a Trimble S6 Total Station once survey control was established. All collar locations were recorded in the companies SQL database. All drill-holes have magnetic down-hole surveys taken at approximate 30m intervals using a single shot down-hole survey instrument. Two surveyed base stations were used to test all down-hole cameras for accuracy. Certified standards were inserted into sample sequences according to Kagara QAQC procedures. Duplicate samples for selected RC samples were also taken. Some standards in the 2011 drilling program did not perform within acceptable ranges and as a result several batches of samples were re-submitted by MUX for assay. The QAQC results from the re-assayed batches were acceptable and these assays have been incorporated into the current resource estimate.

	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	Mineralised diamond core as well as zones adjacent to mineralisation was split using a diamond saw. One quater core samples were taken from 25 of the diamond holes and half core samples were taken from 66 of the diamond holes. Remaining core has been kept for reference or sent to cold storage for future metallurgical studies. Sample intervals were nominally 1m with adjustments made to match litholocigal contacts. Approximately 70% of sample intervals utilised in the resource estimate were 1m or less. Sample widths in RC holes ranged from 0.5m to 4m with the majority of ore zones being 1m. Bulk samples were collected in plastic bags over one metre intervals directly from a rig mounted cylcone. In most cases, composite or individual spear or grab samples were collected from the bulk bags to produce a 3kg sample for analysis. Spear sampling was used over dry intervals and grab sampling was used for wet intervals not suitable for spear sampling. Subsequently, significantly mineralised intervals were re-sampled over one metre intervals through a 75:25 Jones riffle splitter for further analysis after wet samples had dried (and been manually pulverised if required). Kagara samples were submitted to SGS Laboritories in Townsville for base metal anlayisis by ICP OES and gold analysis by 50gm Fire Assay.

Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	Prior to Kagara ownership previous operators (BP Minerals, Aztec and Perilya) drilled a total of 25 diamond holes and 20 RC percussion holes in five campaigns between 1989 and 1992. Diamond holes ranged in depth from 72m to 426m, averaging 298m and RC holes ranged in depth from 30m to 153m, averaging 74m. Kagara completed 109 diamond drillholes and 24 RC percussion holes in 7 campaigns between 1999 and 2011. Diamond holes ranged in depth from 39m to 1029.8m, averaging 304m and RC holes ranged in depth from 46m to 200m, averaging 130m. Kagara diamond holes were NQ2 or HQ/HQ3. All diamond core was oriented using a spear up until 2006 and an ACE tool thereafter. Kagara RC percussion holes were drilled with a 133mm or 140mm face sampling hammer. All Kagara drillholes had magnetic downhole surveys taken using an Eastman single shot camera, an ER simple shot digital camera or a Ranger explorer multishot digital camera. Survey intervals were nominally 30m. Stainless steel rods were used at the base of the RC percussion rod string for accurate magnetic surveys.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Diamond core recovery is logged and recorded in the database. No significant core loss issue exists. The average core recovery is 98.7% and is over 99% for samples from the mineralised zones. Minimum logging of RC recovery was performed; however no significant recovery issues were experienced.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	HQ3 triple tube was utilised to help improve and record sample recovery when ground conditions dictated. Diamond core was reconstructed into continuous runs for orientation marking as per the Kagara procedure. Depths were checked against the core blocks. RC samples were taken through a cyclone and spear samples were used to collect a uniform sample. These were routinely cleaned.
	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.	Sample recovery for diamond holes is generally very high (over 99%) within the mineralised zones. Ground conditions for RC drilling were good. No significant bias is expected.

Logging	*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.*	Diamond core was geotechnically logged for recovery, RQD, weathering, hardness and strength. Both diamond core and RC samples were geologically logged for lithology, mineralogy, and oxidation state and structure. An percentage estimate for key minerals was also recorded along with a summary comment. Diamond core trays and RC chip trays are stored on site for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond core and RC chip samples recorded primary and secondary lithology, mineralogy, mineralisation, structure (core only), oxidation, and any other significant feature. Diamond core was photographed after mark up, before sampling with both dry and wet photographs recorded.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Mineralised diamond core as well as zones adjacent to mineralisation was split using a diamond saw. Of the diamond holes utilised in the resource estimate one quater core samples were taken from 25 of the holes and half core samples were taken from 66 of the holes.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected on the rig using a cyclone into large plastic bags. The bags were then speared if dry and grab sampled if wet to produce approximately 3kg of sample. Subsequently, significantly mineralised intervals were re-sampled over one metre intervals through a 75:25 Jones riffle splitter for further analysis after wet samples had dried (and been manually pulverised if required).
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were prepared by firstly being dried to a core temperature of approximately 120^{o}C, crushed to 6mm via jaw crusher and split if the sample was greater than 3kg. Samples were then pulverised in LM5 pulverisers to >85% passing 75µm and a 200g split placed into a pulp packet for sub-sample analysis.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial assay standards. The insertion rate of these averaged 1:20.
	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.	No field duplicates were taken for drill core. At total of 67 duplicates were collected from RC samples.

	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the base metal skarn mineralisation at King Vol, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
Quality of assay data and laboratory test	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Chemical analysis was via 3 acid digest. A 0.3g sample was digested using hydrochloric, nitric and perchloric acid (SGS ICP21R method). The solution is diluted and presented to an ICPOES for analysis. Over upper detection limit samples are redigested with an ore grade 3 acid digest (SGS DIG23Q method) and analysed with an ICPOES (SGS ICP23Q method). Fire assay method FAA505 (SGS) was used to obtain Gold grade. A 50g sample is fused at 1060^{o}C, the resultant product is digested in Aqua Regia and the solution analysed by AAS. A four acid digest (SGS method IMSS4Q) with the resulting product being presented to an ICP mass spectrometer was used for low level antimony, tungsten, tin and tellurium analysis.
	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.	A handheld magnetic susceptibility meter (KT-10) was used to measure magnetic susceptibility for every meter. Data is stored in the drilling database.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	The QAQC data includes standards, blanks, some duplicates and laboratory checks. Standards have been added at a ratio of 1:20 and blanks 1:25 (blanks only used in the most recent MUX re-sampling program).
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All sampling was routinely inspected by senior geological staff. Signficant intersections are inspected by senior geological staff and corporate staff. The independent geologist signing off on the mineral resource estimate completed a site visit and inspected numerous significant intersections from King Vol.
	The use of twinned holes.	No holes have been specifically twinned, but the intense drilling to at times less than 12m centres, indicates good continuity of grade in the main zones.

	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Logging is undertaken by qualified geologists at either the Chillagoe core processing facility or more recently at the remote core logging area set up on site. Data is initially recorded on paper before being entered into standard Excel templates. Data is then sent to a database administrator for validation and storage in the Datashed relational database.
	Discuss any adjustment to assay data.	No adjustments were made to assay data used in this estimate.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Collar locations for historical holes and Kagara holes up to 2007 were picked-up by licensed surveyors using a Differential GPS. Post 2007 collar locations were picked-up by Kagara staff surveyors using a Trimble RTK GPS unit, or using a Trimble S6 Total Station once survey control was established. These instruments provide accuracy within 0.6m. All drill-holes have magnetic down-hole surveys taken at approximate 30m intervals using a single shot down-hole survey instrument.
	Specification of the grid system used.	The grid system is MGA_GDA94, zone 55. A local grid system was established on site.
	Quality and adequacy of topographic control.	AAMHatch Pty Limited (AAM) was commmisioned to fly aerial photography of the area in December 2005 to obtain a detailed topographic surface. AAM provided a Digital Terrain Model (DTM) surface with a vertical and horizontal accuracy of 0.1m
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal drill hole spacing is 25m x 25m, with spacing down to 12.5m in high priority zones and much broader spacing at depth.
	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.	The data spacing and distribution is sufficient to demonstrate both geological and grade continuity within the mineralised domains to support the definition of Indicated/Inferred Mineral Resources under the 2012 JORC code.
	Whether sample compositing has been applied.	1m assay composites were utilised.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The majority of holes have been drilled towards grid east to intersect the north-south striking ore zones at near perpendicular angles. Holes are predominantly drilled at -60 towards the skarn units to return intervals with thickness as true as possible.
	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.	No orientation based sampling bias has been identified in the data.

Sample security	*The measures taken to ensure sample security.*	Samples were stored in sealed polyweave bags at the Chillagoe core processing facility. They were delivered to SGS laboritories in Townsville by a local transport company.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques are consistent with industry standards. No external audits or reviews of sampling techniques have been carried out.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	*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.*	The King Vol project is 100% owned by Mungana Goldmines Limited. The project is located within EPM7672 and is subject to Mine Lease Application MLA 20658.
	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.	The tenement is in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Mungana Goldmines Ltd secured 100% ownership of EPM7672 as part of the Chillagoe base metals acquistion from Kagara Ltd in July 2014. Kagara purchased the project in 2000 from Perilya Mines who had been exploring the region from 1992. Prior to Perilya Mines, Aztec Mining Co. Ltd held the lease. A total of 25 diamond holes and 20 percussion holes had been drilled across the King Vol project prior to Kagara taking ownership. Of these holes, 16 diamond and 1 percussion, were used in the King Vol Mineral Resource estimate. Some minor shallow historical mining was carried out at King Vol in association with the larger Mungana project in the early 20th Century. A small remnant open cut still exists.
Geology	*Deposit type, geological setting and style of mineralisation.*	Information relating to the geology and interpretation are included in Section 3.
Drill hole information	*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:* *• easting and northing of the drill hole collar* *• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *• dip and azimuth of the hole* *• down hole length and interception depth* *• hole length.* *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 this is the case.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources. Notes relating to drill hole information relevant to the Mineral Resource estimate have been included in Section 1. A table containing all drill intersections utilised in the Mineral Resource estimate is included as Appendix 1.

Data aggregation methods	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources. Some high grade cuts were utilised in the Mineral Resource estimate and these are discussed in Section 3.
	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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drill hole angles and the orientation of mineralisation is covered in Section 1.
	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').	Not applicable.
Diagrams	*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.*	Refer to the diagrams that have been included in the body of the text.
Balanced reporting	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.

Other substantive exploration data	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code Explanation	Commentary
Database integrity	*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.*	A set of standard Excel templates are used to capture the data. These sheets are then sent to a database administrator for validation and storage in Datashed. Data used in the Mineral Resource estimate is sourced from a dataset provided in the form of an MS Access database, from the companies Datashed relational database. Relevant tables from the database are exported to the relevant format for use in the Mineral Resource estimate.
	Data validation procedures used.	Validation of data occurs during import into Datashed. The checks include overlapping intervals, missing survey data, missing collars, duplicate sample numbers and incorrectly recorded assay data.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The competent person has visited the project for a total of 3 days between 21st and 23rd October 2014. Drill core from the project was reviewed and field visits to the project area were undertaken.
	If no site visits have been undertaken indicate why this is the case.	Not applicable

Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Confidence in the geological interpreation of the King Vol deposit is considered to be good. The deposit is located on the skarnified sheared contacts and within the sediments of the Chillagoe formation. The sediment sequence is well understood and drill density is sufficient to allow reasonable levels of confidence in the continuity of the massive to semi-massive sulphide lenses that makeup the Mineral Resource. Confidence in the model decrease at depth in line with the paucity of drilling.
	Nature of the data used and of any assumptions made.	Drilling data has provided information on lithology, alteration and mineralisation that has formed the basis of the geological interpretation.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The most recent infill drilling continued to support the geological interpretation of the King Vol deposit.
	The use of geology in guiding and controlling Mineral Resource estimation.	The King Vol Deposit is located on the sheared contacts and within the sediments of the Chillagoe formation. numerous separate lenses have been identified on a minimum of 4 mineralized horizons. The sediment sequence, from West to East comprises of the Western Limestone (WL), the Arkose (ARK), the Eastern Limestone (EL), Interbeded Sandstones and Shales (ISH) and the Chert. • The WL is comprised mostly of light to medium grey foliated limestones, fossiliferous in parts with interbeded olive green sheared chloritic basalts. • The ARK is a more massive unit of light to medium grey, fine grained, poorly bedded siliceous sandstones. It displays various degrees of chlorite and sericite alteration. Skarn alteration in the unit can vary from strong retrograding garnet skarn to massive pyroxene and feldspar skarn. • The EL is very similar to the WL. Comprised mainly of foliated limestone's, rarely fossiliferous and interbeded with sheared chloritic shales. • The ISH unit is very specific to the King Vol deposit. It's comprised of thinly bedded siltstones and sandstones, occasionally with minor mafic horizons, is typically highly disrupted and brecciated in appearance. • The Chert unit is mostly massive, with some whispy shale partings and variable degrees of fracture and brecciation.
		The mineralised zones are either found on the contacts of these units associated with skarn or replacing limestone within the sequence. Contacts between ore and waste are well defined, sharp and clearly distinguishable.

	The factors affecting continuity both of grade and geology.	The Eastern Limestone and Western Limestone contacts that host the bulk of the Mineral Resource can be tracted for kilometres. Continuity of grade is much more localised within the King Vol deposit. The replacement mineralisation in particular occurs in discontinuous pods and has only been included in the Mineral Resource estimate where multiple drill intersections support the model.
Dimensions	*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*	The King Vol Mineral Resource is contained within numerous lenses along 4 mineralised horizons. It stretches for approximately 500m along strike. The widths of the various lenses vary from over 15m to less than 1m. Mineralisation commences at 50m below surface and extends to over 800m below surface.
Estimation and modeling techniques	*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.*	Grade estimation was by Ordinary Kriging (OK) using Vulcan software. The elements estimated were Zn%, Pb%, Cu% and Ag ppm . Drill hole sample data was flagged using domain codes generated from three dimensional wireframes of the mineralised domains that make up the resource. Sample data was composited to 1m best fit downhole lengths. The influence of extreme sample distribution outliers was reduced by top-cutting where required. The top cut levels were determined using a combination of top-cut analysis tools (log probability and frequency plots, histograms and cumulative frequency plots, and CV's). Minimal amounts of top cutting was deemed necesary. Assay and composite data was checked for clustering. Spatial observation of the dataset indicates only minor to no clustering exists and as such, no de-clustering process was deemed necessary. Variography was undertaken on all elements using data in the relevant domains. Short range variation, or nugget effect, was analysed via downhole variography.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The results of previous Mineral Resource estimates for the King Vol deposit are available. These results were compared with this most recent estimate and grades are similar with a slight increase in tonnage.
	The assumptions made regarding recovery of by-products.	No assumptions have been made.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Estimation of As and Sb were previously carried out as these are potential penalty elements and this has not been updated as part of the current resource.

	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The deposit was drilled on nominal 25m-spaced east-west (local grid) sections, with spacing closing to 12.5m in high priority areas. The block model was constructed using a 10mN by 5mE by 5mRL parent block size with sub-blocking to 1.25mN by 0.625mE by 0.625mRL for domain volume resolution. All estimation was completed at the parent cell scale. Discretisation was set to 3 by 3 by 3 for all domains. The size of the search ellipse for each domain was based on the nominal drillhole spacing for the deposit and variogram ranges.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate
	Any assumptions about correlation between variables.	Correlation coefficients between the various elements have been calculated as part of the statistical analysis undertaken. Correlation coefficients range from well correlated to poorly correlated and is variable depending on the relevant domain.
	Description of how the geological interpretation was used to control the resource estimates.	The geological interpretation was the basis of the mineralisation domains. These domains were used as hard boundaries to select sample populations for grade estimation.
	Discussion of basis for using or not using grade cutting or capping.	Top cutting was only deemed necessary for a small number of assays for Cu and Ag after statistical analysis that included log probability plots, cumulative frequency plots and CV evaluation. These cuts only applied to a small number of extreme outliers and have only minor effect on the mean grades where applicable.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	A volumetric comparison of the resource wireframes and the block model showed no abnormalities. Domain block estimate grades were compared to average composite grades and showed good correlation. Visual validaton of grade trends and metal distributions were carried out. No reconciliation data is available.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied*	The reported Mineral Resource estimate is reported as the total material within the mineralised domains, so no cut-off grade has been adopted for reporting purposes.

Mining factors or assumptions	*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.*	Mining of the King Vol deposit will be predominantly by underground mining methods. The geometry of the deposit will make it ammenable to sub-vertical narrow ore mining methods currently employed in many operations in similar deposits around the world, including the nearby Mungana deposit which was successfully mined by Kagara over several years. No assumptions in mining methodology have been made when estimating this Mineral Resource.
Metallurgical factors or assumptions	*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.*	Metallurgical flotation test work carried out on King Vol drill core samples has indicated recoveries of 93.6% Zn, 63.7% Pb and 44.5% Cu at concentrate grades of 52.1%, 57.1% and 23.2% for Zn, Pb and Cu repsectively. No significant penalty elements are present in the concentrates produced in the test work. No assumptions in metallurgical amenability have been made when estimating this Mineral Resource.
Environmental factors or assumptions	*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*	No assumptions have been made.
Bulk density	*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.*	Bulk density of the mineralised material was estimated via ordinary kriging of diamond drillhole bulk density determinations. A bulk density database has been supplied containing a total of 573 data within mineralised wireframes. The density values for each sample were calculated by the Archimedes Principle (mass of the sample in air divided by the difference between the mass of the sample in air and the mass of the sample in water). Density measurements were generally taken on the entire sample interval of uncut drill core within the assay interval. Some later density measurements were taken on the entire sample interval of cut core within the assay interval. A standard rock was used to check reliability of measurements.

	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.	The majority of samples taken were fresh and did not contain voids. Whilst some porosity can be expected the bulk density assigned is considered to be reasonable.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The same methods have been used to assign bulk density values to the various waste rock types.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Mineral Resource classification of Indicated or Inferred for King Vol is based on the level of confidence in the geological and grade continuity, along with the drill density. Quality of grade estimate as indicated by slope of regression and kriging quality is also taken into account during the classification process.
	Whether appropriate account has been taken of all relevant factors (i.e. 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).	The Inferred and Indicated classification has taken into account all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits of the Mineral Resource estimate have been undertaken at this time.
	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 relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Inferred and Indicated classification as per the guidelines of the 2012 JORC Code.
	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.	The statement relates to global estimates of tonnes and grade.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data is available.

Appendix 1: King Vol Mineral Resource Drill Hole Summary

Hole ID	Easting (m)	Northing (m)	Dip	Azi (mag)	From (m)	To (m)	Interval (m)	Cu (%)	Pb (%)	Zn (%)	Ag (ppm)
KVD001	207082	8125327	-60	40	51	51.8	0.8	6.0	18.0	25.1	751.0
KVD001					63	65.2	2.2	0.4	3.1	5.2	33.5
KVD001					102.78	110.78	8	0.8	0.0	5.9	22.8
KVD001					124	126	2	0.7	0.1	10.1	13.0
KVD002	207005	8125391	-65	40	163.38	174.41	11.03	0.0	0.1	4.6	4.0
KVD002					184.18	191.1	6.92	0.9	0.0	16.9	40.3
KVD003	206972	8125356	-60	40	186.6	187.6	1	0.8	0.1	20.0	30.0
KVD004	207035	8125283	-61	40	225.27	226.16	0.89	1.5	0.1	25.3	49.0
KVD005	206893	8125423	-65	40	197.75	207.13	9.38	0.9	1.7	3.9	53.8
KVD005					258.63	260.13	1.5	0.0	0.1	15.7	4.1
KVD005					278.03	280.91	2.88	1.7	0.1	21.2	26.9
KVD006	206834	8125503	-65	40	265	270.57	5.57	0.1	0.0	25.5	3.1
KVD007	206955	8125346	-70	40	211	216.85	5.85	2.2	1.5	2.9	71.5
KVD007					286.46	289.36	2.9	0.9	0.1	18.6	16.3
KVD010	206886	8125555	-63	40	175.8	177	1.2	0.0	2.6	7.2	60.0
KVD010					189	189.64	0.64	0.0	0.0	10.0	3.0
KVD012	206787	8125464	-70	40	251.45	254.75	3.3	0.0	2.8	6.6	66.9
KVD013	206859	8125389	-70	40	269.2	269.97	0.77	0.2	14.0	20.0	196.0
KVD013					318.16	322.3	4.14	0.0	0.1	13.1	6.5
KVD013					344.74	362.57	17.83	1.1	0.1	24.8	26.2
KVD013					379.36	380.06	0.7	1.2	0.1	26.0	20.0
KVD015	207004	8125246	-72	40	208.44	210.75	2.31	0.4	0.5	17.8	18.2
KVD015					277.37	279.41	2.04	0.4	0.1	12.4	94.7
KVD015					292.55	293.54	0.99	0.2	0.1	15.7	31.9
KVD016	207004	8125246	-72	40	200.2	203.05	2.85	0.0	0.0	6.7	2.0
KVD016					259.6	260.2	0.6	0.4	2.7	4.1	30.0
KVD016					267.35	269.45	2.1	1.1	0.1	17.2	17.3
KVD017	207109	8125212	-62	40	201.5	227.57	26.07	0.2	0.0	5.0	6.6
KVD023	206874	8125406	-65	40	241.64	246.45	4.81	0.3	3.1	7.2	30.3
KVD023					316.96	320	3.04	0.1	0.1	11.6	10.7
KVD024	206908	8125370	-63	40	221	221.5	0.5	0.5	13.4	24.7	235.0
KVD024					272.45	276.75	4.3	1.3	0.3	25.9	34.3
KVD025	206839	8125442	-59	40	211.47	218.66	7.19	1.6	1.4	1.4	59.0
KVD025					309	310.18	1.18	0.7	0.0	6.0	9.0
KVD026	206955	8125412	-59	40	171.62	173	1.38	2.9	0.0	16.8	52.8
KVD027	207046	8125357	-61	40	75	77	2	1.2	6.7	13.4	89.0
KVD027					107	113	6	0.4	0.1	12.2	23.0
KVD027					129	130	1	0.8	3.6	3.4	66.0
KVD027					161.34	162.47	1.13	0.4	0.1	16.2	15.0
KVD028	206828	8125354	-71	39	381.33	384.2	2.87	0.3	1.7	9.3	74.9

Hole ID	Easting (m)	Northing (m)	Dip	Azi (mag)	From (m)	To (m)	Interval (m)	Cu (%)	Pb (%)	Zn (%)	Ag (ppm)
KVD030	207015	8125330	-63	37	123.67	125	1.33	0.5	6.0	3.8	39.7
KVD030					150	151.65	1.65	0.4	2.1	3.3	28.5
KVD030					202.6	203.05	0.45	2.0	0.0	36.8	33.0
KVD031	206894	8125493	-67	38	203.67	204.07	0.4	0.1	0.0	11.1	2.6
KVD033	206963	8125348	-67	37	155	157	2	0.1	1.8	7.8	2.9
KVD033					200.33	202.63	2.3	2.8	1.1	4.3	143.1
KVD033					256.45	256.9	0.45	0.0	0.0	25.9	2.6
KVD034	206934	8125390	-68	39	148.06	149.31	1.25	0.1	2.7	1.1	103.6
KVD034					220.08	221.79	1.71	0.5	0.1	26.5	18.5
KVD039	206901	8125357	-68	35	259.24	259.49	0.25	4.9	0.0	9.7	52.0
KVD039					349.25	353.18	3.93	1.8	0.1	31.9	27.7
KVD041	206917	8125444	-65	37	142	143	1	1.0	5.1	7.8	45.4
KVD041					195	196.2	1.2	0.0	0.1	23.8	18.5
KVD041					211.65	216.38	4.73	0.9	0.0	17.8	18.0
KVD042	206915	8125445	-57	39	123	126	3	0.1	8.1	16.1	191.0
KVD042					164	174.78	10.78	0.8	0.1	22.7	19.0
KVD042					200.24	202.11	1.87	1.5	0.8	23.2	54.3
KVD043	206916	8125446	-48	39	120.95	122.94	1.99	0.4	17.6	30.2	483.5
KVD043					149.85	153.72	3.87	1.5	0.5	14.5	34.1
KVD043					178.45	179.81	1.36	2.7	0.1	22.6	38.9
KVD046	206860	8125529	-66	39	208.9	210.27	1.37	0.2	0.6	10.3	23.8
KVD046					227.72	228.46	0.74	1.4	0.1	31.8	42.5
KVD047	206893	8125492	-55	39	120	120.6	0.6	0.4	6.3	9.5	35.0
KVD047					160.02	160.23	0.21	0.3	9.6	9.9	197.0
KVD047					168.28	169.72	1.44	2.1	0.3	30.6	45.5
KVD048	206947	8125476	-48	29	26.5	29.5	3	0.2	1.1	6.0	28.3
KVD048					92	92.97	0.97	0.5	5.2	6.2	78.0
KVD048					115.95	121.82	5.87	0.9	0.1	23.5	15.5
KVD048					133.04	135.38	2.34	0.4	0.5	5.4	18.3
KVD049	207085	8125259	-59	39	134.65	135.23	0.58	0.2	3.4	5.8	81.0
KVD049					142.76	143.53	0.77	0.8	1.4	12.0	42.9
KVD050	207160	8125263	-57	40	74.8	76.38	1.58	1.2	0.0	46.5	43.0
KVD051	207138	8125241	-62	38	140.64	141.54	0.9	0.3	0.3	6.5	3.0
KVD052	207155	8125189	-63	39	165.03	165.4	0.37	0.6	0.1	41.6	7.7
KVD055	206911	8125474	-58	39	116	117	1	0.2	3.2	5.1	79.0
KVD055					187.5	187.98	0.48	1.8	0.2	21.3	12.0
KVD056	206913	8125475	-48	39	110	111	1	0.3	15.1	27.1	400.0
KVD056					139.4	140.47	1.07	1.1	1.5	18.6	44.0
KVD056					163.06	163.22	0.16	1.3	0.1	12.6	21.0
KVD057	206946	8125438	-64	34	175.16	177.35	2.19	1.2	0.1	33.0	19.5
KVD057					194.83	196.21	1.38	0.1	2.6	11.2	31.9

KVD058	206947	8125439	-57	34	157.21	163.55	6.34	0.8	0.0	23.4	18.2
Hole ID	**Easting (m)**	**Northing (m)**	**Dip**	**Azi (mag)**	**From (m)**	**To (m)**	**Interval (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Ag (ppm)**
KVD058					185.86	187.49	1.63	0.4	0.5	9.8	15.8
KVD059	206973	8125459	-58	33	78	80	2	0.7	5.7	8.6	239.5
KVD059					112.49	113.08	0.59	0.7	0.1	28.3	15.0
KVD059					136.78	140.98	4.2	0.0	0.4	6.5	7.0
KVD060	206974	8125460	-49	33	103.57	104.16	0.59	0.5	0.3	22.7	21.0
KVD060					125.63	129.45	3.82	0.7	0.5	15.1	73.0
KVD061	206937	8125500	-56	33	94	95	1	0.6	5.4	11.2	127.0
KVD061					115.93	116.38	0.45	0.8	1.8	18.4	57.0
KVD061					132.07	133.99	1.92	0.9	0.1	21.6	16.0
KVD062	206938	8125501	-45	33	91.3	92.33	1.03	0.3	0.1	20.0	6.0
KVD062					106.73	109.67	2.94	1.0	0.7	21.9	42.3
KVD062					122.83	123.13	0.3	0.2	0.0	9.6	6.0
KVD064	206918	8125144	-75	25	798.5	799.01	0.51	0.0	1.1	20.9	9.0
KVD064W1	206918	8125144	-75	25	624.2	635.7	11.5	0.5	0.4	7.2	24.9
KVD064W2	206918	8125144	-75	25	684	686.7	2.7	0.8	0.5	3.3	66.2
KVD066	206659	8125110	-65	38	846.73	880.06	33.33	0.4	0.2	6.1	9.8
KVD069	206941	8125468	-71	35	107.3	109.25	1.95	0.1	4.9	11.1	207.3
KVD069					151.17	163.05	11.88	0.5	0.1	12.2	14.4
KVD069					190.83	192.8	1.97	1.1	0.2	20.6	32.8
KVD069W1	206941	8125468	-71	35	191.28	192.62	1.34	0.6	0.1	24.3	17.3
KVD069W2	206941	8125468	-71	35	107.9	109.08	1.18	0.1	12.7	14.6	251.2
KVD071	206849	8125227	-68	24	612.6	633.4	20.8	0.5	0.1	9.2	10.6
KVD073	206812	8125288	-62	37	481	481.9	0.9	2.4	0.0	21.4	32.0
KVD073W1	206812	8125288	-62	37	419.2	419.9	0.7	3.8	0.2	27.6	72.0
KVD073W1					432.1	449.4	17.3	0.2	0.1	5.2	10.4
KVD073W2	206812	8125288	-62	37	450.5	455.04	4.54	1.6	0.0	35.3	22.9
KVD074	207050	8125146	-60	34	293.9	299.9	6	0.5	2.5	16.8	44.4
KVD075	207050	8125146	-68	34	373.9	375.4	1.5	1.4	0.1	10.7	40.0
KVD080	206879	8125178	-56	36	495.7	502.8	7.1	0.2	0.0	9.7	3.9
KVD081	206851	8125225	-63	34	547.5	549.5	2	0.5	0.0	9.6	10.0
KVD082	207015	8125292	-62	36	194.7	201.75	7.05	0.1	0.0	5.0	3.5
KVD082					224.7	229.45	4.75	0.1	3.3	4.4	164.8
KVD082					251.9	258.35	6.45	0.9	0.1	19.4	29.0
KVD083	207022	8125369	-61	37	176.2	181.9	5.7	1.7	0.0	41.1	33.0
KVD084	206931	8125357	-63	35	170.5	171.7	1.2	0.7	0.8	0.4	392.0
KVD084					238.4	240.2	1.8	0.3	0.0	18.3	5.3
KVD085	206971	8125318	-63	35	165	165.5	0.5	0.0	3.3	6.2	40.2
KVD085					273.2	279.2	6	0.1	0.0	6.7	3.3
KVD087	207065	8125410	-70	33	122.8	132.3	9.5	0.6	0.5	14.5	25.9
KVD088	207021	8125369	-71	37	213.8	214.37	0.57	1.4	0.0	26.7	28.0

KVD091	207065	8125340	-61	37	65.45	69.5	4.05	0.9	1.8	3.7	13.8
KVD091					172.4	174	1.6	0.2	0.1	2.2	7.3
Hole ID	**Easting (m)**	**Northing (m)**	**Dip**	**Azi (mag)**	**From (m)**	**To (m)**	**Interval (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Ag (ppm)**
KVD092	207064	8125340	-70	37	75.25	78.5	3.25	0.9	5.5	10.5	20.2
KVD092					145.2	155.6	10.4	1.6	1.5	5.0	57.1
KVD092					175.4	177.82	2.42	0.2	0.1	6.7	6.2
KVD093	207020	8125438	-61	37	56.8	58.2	1.4	2.8	7.2	7.3	151.0
KVD095	207107	8125388	-60	37	60.8	62.86	2.06	0.0	0.1	18.4	11.0
KVD095					100	105.1	5.1	0.1	0.0	3.3	8.2
KVD096	207107	8125388	-75	37	132.3	138.9	6.6	1.7	0.0	20.1	44.0
KVD097	206975	8125400	-62	36	127.7	128.8	1.1	0.2	3.0	4.4	48.0
KVD097					171.8	173.9	2.1	0.5	0.1	15.3	28.0
KVD098	206975	8125400	-69	36	192	192.4	0.4	0.4	0.0	7.2	26.0
KVD099	206929	8125412	-64	33	154.3	156.1	1.8	0.2	13.9	24.4	251.0
KVD099					197.8	213.1	15.3	0.2	0.0	6.8	9.4
KVD100	206928	8125412	-72	33	161.4	163.5	2.1	0.2	4.5	4.0	141.0
KVD100					180.7	184.15	3.45	2.6	12.1	16.1	489.6
KVD100					236	236.4	0.4	0.4	3.8	13.7	107.0
KVD100					260.2	277.5	17.3	1.3	0.1	30.8	22.4
KVD100W1	206928	8125412	-72	33	185.9	192.1	6.2	0.7	8.8	18.8	169.6
KVD100W1					282.95	300.8	17.85	1.2	0.1	27.9	23.0
KVD100W1					343.45	343.75	0.3	3.3	0.1	20.8	68.0
KVD101	207006	8125397	-64	37	171.1	175.6	4.5	0.2	0.3	9.2	22.6
KVD103	207000	8125495	-60	38	71.7	71.9	0.2	0.8	0.1	39.6	21.0
KVD104	206964	8125453	-63	38	38.85	47.2	8.35	0.7	5.1	19.0	151.5
KVD104					95.05	95.65	0.6	1.3	11.4	15.1	919.0
KVD104					136.45	138.3	1.85	0.7	0.1	14.1	20.0
KVD104					161.65	162.5	0.85	0.5	0.5	6.1	30.0
KVD105	207058	8125305	-69	37	169.4	170.6	1.2	0.3	0.2	7.0	10.0
KVD108	207111	8125247	-63	36	167.25	168.9	1.65	0.8	1.4	17.0	47.0
KVD109	207149	8125286	-61	36	101.7	105.5	3.8	0.1	0.1	15.6	9.2
KVD110	207148	8125285	-74	36	132	136.4	4.4	0.6	0.1	13.5	19.3
KVD111	207145	8125349	-60	38	51.8	54.5	2.7	2.3	2.0	0.5	78.0
KVD112	207144	8125348	-77	38	85.35	86.4	1.05	0.1	0.1	25.2	17.0
KVD113	206890	8125456	-63	39	153.6	154.1	0.5	0.3	4.5	8.5	49.0
KVD113					220.55	223.5	2.95	0.7	0.1	31.7	30.6
KVD114	206890	8125456	-69	39	284.05	284.35	0.3	0.3	0.5	24.1	16.0
KVD115	206982	8125509	-61	40	38.6	43.6	5	0.6	2.0	4.3	55.5
KVD116	207147	8125221	-75	35	218.95	238.8	19.85	0.5	0.1	8.6	14.1
KVD116					238.8	240.45	1.65	1.7	0.0	39.5	25.0
KVD116					240.45	243.3	2.85	0.1	0.5	1.8	11.8
KVD117	206928	8125412	-65	33	132.3	134.2	1.9	0.1	3.0	3.8	186.0

KVD117					161.1	161.9	0.8	0.1	0.3	13.1	15.0
KVD117					208.4	231.3	22.9	0.5	0.0	11.4	10.9
KVD118	206927	8125412	-70	32	160.4	165	4.6	0.3	9.8	11.7	249.2
Hole ID	**Easting (m)**	**Northing (m)**	**Dip**	**Azi (mag)**	**From (m)**	**To (m)**	**Interval (m)**	**Cu (%)**	**Pb (%)**	**Zn (%)**	**Ag (ppm)**
KVD118					243.6	260.65	17.05	0.6	0.1	24.0	15.6
KVD119	206895	8125357	-64	36	273.8	277.23	3.43	0.1	1.4	5.8	33.4
KVD119					300.5	301.3	0.8	1.2	0.1	29.2	27.0
KVD120	207098	8125192	-60	39	240.8	241.75	0.95	0.2	0.0	22.4	7.0
KVD121	207091	8125157	-61	40	245.95	246.5	0.55	0.0	0.0	17.1	6.0
KVD122	207091	8125157	-68	40	280.4	281.9	1.5	0.4	0.1	5.6	22.0
KVD123	206920	8125146	-64	34	542.7	545.9	3.2	0.1	0.1	2.5	7.0
KVD124	207058	8125261	-69	35	256.1	260.6	4.5	0.3	0.1	32.5	9.8
KVP032	207181	8125284	-60	39	26	34	8	0.4	0.0	5.7	20.0
KVP033	206983	8125510	-50	39	40	41	1	0.6	5.1	2.3	15.0
KVP034	206964	8125561	-64	39	36	40	4	0.4	5.9	1.4	54.0
KVP034					66	85	19	3.4	1.0	5.8	336.7
KVP035	206929	8125596	-54	39	92	100	8	6.5	0.6	7.5	415.6
KVP036	206896	8125563	-53	39	60	64	4	0.6	3.8	5.0	128.0
KVP037	206925	8125525	-52	39	73	75	2	0.8	10.1	10.4	222.4
KVP037					106	113	7	1.0	3.9	4.6	112.9
KVP037					121	125	4	0.4	0.6	13.4	30.5
KVP042	207018	8125402	-53	39	107	118	11	1.0	0.2	9.2	53.2
KVP043	207036	8125422	-50	39	81	83	2	1.4	0.1	12.1	41.5
KVP045	207091	8125407	-50	39	56	61	5	0.1	0.2	6.5	19.2
KVP046	207105	8125349	-57	39	77	81	4	1.1	0.2	17.3	60.8
KVP047	207103	8125348	-57	39	78	82	4	2.1	0.4	10.3	69.8
KVP048	207137	8125369	-57	39	47	59	12	1.1	0.2	7.5	52.8
KVP051	207117	8125291	-60	39	82	83	1	0.8	1.1	6.3	27.0
KVP051					86	97	11	3.0	1.4	17.3	125.5
KVP051					102	106	4	1.8	1.3	19.0	58.3
KVP053	207182	8125210	-57.5	38.5	136	137	1	1.9	0.2	2.4	17.9

Note: The mineralised interval lengths of intercepts shown in the above table are down-hole distances and are not corrected for angle of dip. True width is approximately 60% of downhole width.

27 April 2015

Company Announcement Office
Australian Stock Exchange Ltd
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ASX code: MUX

REVISED
RED CAP RESOURCE ESTIMATES RE-ISSUED WITH JORC 2012 COMPLIANCE

Further to previous announcement of the Red Cap Resources Estimates Re-issued with JORC 2012 Compliance (ASX: 16 April 2015), Mungana Goldmines Ltd has revised that announcement to include a summary of the information material to understand the mineral resource estimate.

HIGHLIGHTS

The Penzance, Queenslander and Morrisons deposits located in the Red Cap area, part of the Chillagoe Project in North Queensland are re-issued as JORC 2012 compliant Mineral resource estimates. There are no material differences between the revised 2015 resource estimations and those completed by Kagara Ltd in 2012 as published in the March and June 2012 quarterly reports.

- ***Penzance - Copper dominant Inferred Resource of 0.2 million tonnes at 3.2% copper, 1.3% zinc, 0.2 grams per tonne gold and 58 grams per tonne silver, containing 7Kt of copper, 3Kt of zinc and 0.4Moz of silver***

- ***Penzance, Queenslander and Morrisons - Inferred Resources with a combined total of 3.6 million tonnes at 5.0% zinc, 0.6% copper, 0.3% lead and 17 grams per tonne silver containing 178Kt of zinc, 20Kt of copper, 9Kt of lead, and 1.96Moz of silver***

- **The Penzance and Morrisons resources remain open at depth and along strike to the east. The Queenslander resource remains open at depth and along strike to the west.**

Mungana Goldmines Limited (ASX: MUX) is pleased to re-issue the Red Cap Mineral resource estimates associated with its 100%-owned Chillagoe base metals project located 210km west of Cairns in north Queensland. These resource estimates were previously completed by Kagara Ltd (KZL) and the latest work by Mungana Goldmines supersedes the previous work to JORC 2012 compliance. The Chillagoe base metals project was acquired by Mungana Goldmines from the liquidators of Kagara Ltd in July 2014.

The Red Cap area is located 15 kilometres North West of Chillagoe and only 4 kilometres from the partially built base metals concentrator at the Mungana mine site. This resource estimate does not include the Victoria resource also located at Red Cap which is still to be completed to JORC 2012

compliance. The Red Cap area is considered one of the most prospective areas within the Chillagoe portfolio and is expected to be a key focus of exploration activity outside of the King Vol area.

The company has previously re-issued the high grade King Vol zinc resource in January 2015 (ASX: 28 January 2015) to JORC 2012 compliance. The King Vol resource estimate is 3.0 million tonnes at 11.9% zinc, 0.8% copper, 0.6% lead and 29.9 gram per tonne silver. The King Vol resource is located 25km to the Northwest of Red Cap and the partially built Mungana concentrator.

The Red Cap Mineral Resource estimates are set out in Table 1 below.

	Red Cap Inferred Mineral Resource - March 2015										
	Tonnes (Mt)	Grade					Contained Metal				
		Zn %	Cu %	Pb %	Au g/t	Ag g/t	Zn (kt)	Cu (kt)	Pb (kt)	Au (Koz)	Ag (Moz)
Penzance (Cu)	0.228	1.3	3.2	0.0	0.2	58	3	7	0	1.5	0.43
Penzance (Zn)	0.085	6.2	0.7	0.2	0.1	19	5	1	0	0	0.05
Queenslander	1.570	4.4	0.5	0.2	0.0	12	69	8	3	0	0.61
Morrisons	1.930	5.4	0.6	0.3	0.1	21	104	11	6	62	1.65
Total	**3.813**	**4.8**	**0.7**	**0.2**	**0.1**	**19**	**181**	**27**	**9**	**63.5**	**2.74**

Table 1 – Red Cap Mineral Resource (Geologically constrained, not reported to cut-off)

The Red Cap Mineral Resource estimate has been completed in accordance with the Australasian Code for Reporting of Exploration Results, Mineral resources and Ore reserves, The JORC Code 2012 Edition. The Mineral Resource is based on 76 intersections from 70 drill holes, with all intersections derived from NQ diamond core. Core samples were split with a diamond saw and half core samples taken for analysis. Sample intervals were nominally 2m but were adjusted to match lithological contacts. All samples were submitted to a commercial laboratory for analysis by acid digest with ICP finish for silver and base metals. Analysis for gold was by fire assay.

All resources are classified as inferred based on the confidence levels derived from the drill spacing. The Queenslander and Morrison Resource Estimates were carried out using ordinary kriging and the Penzance estimate by inverse distance squared. Resource shapes are based on geological interpretation and as such a cutoff grade has not been utilised for reporting. The deposits are considered amenable to sub-vertical narrow ore mining methods similar to those previously employed at the nearby Mungana underground mine. No consideration has yet been given to other modifying factors.

A summary of information used in the Red Cap Mineral resource estimate is provided in Appendix 1. There is no material differences in these resource estimates in comparison to those previously published in 2012. The Morrisons and Penzance resource estimates are the same and the Queenslander resource is slightly different with the inclusion of an additional drill hole. (Queenslander 2012 resource was published as 1.59 Million tonnes at 4.5% zinc, 0.6% copper, 0.1% lead and 11 grams per tonne silver).

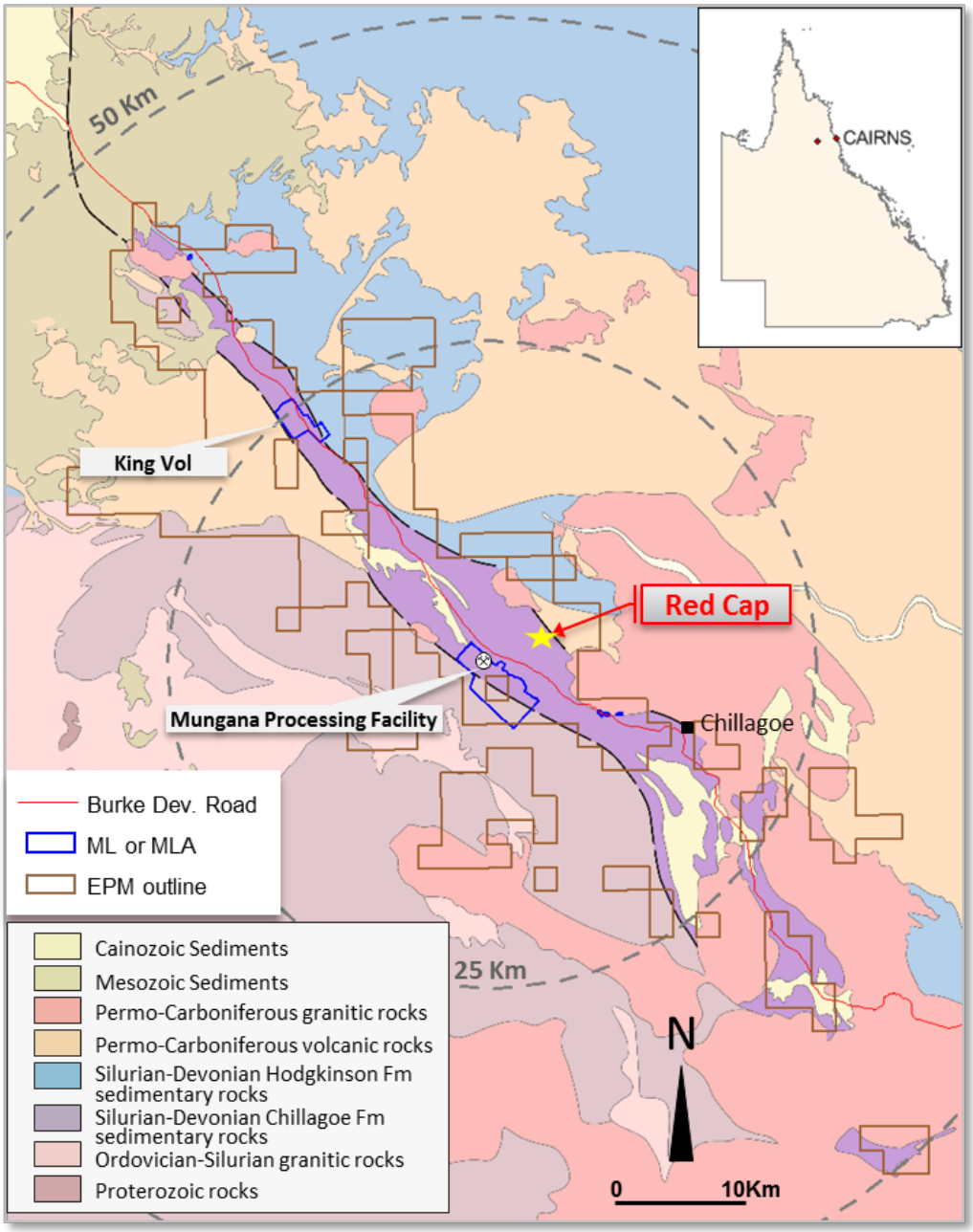

Figure 1 – Red Cap Location Plan

Geology

The Red Cap area lies within the companies Chillagoe project and consists of several base metal skarn-associated deposits focussed along faulted contacts in the Silurian to Devonian aged Chillagoe Formation.

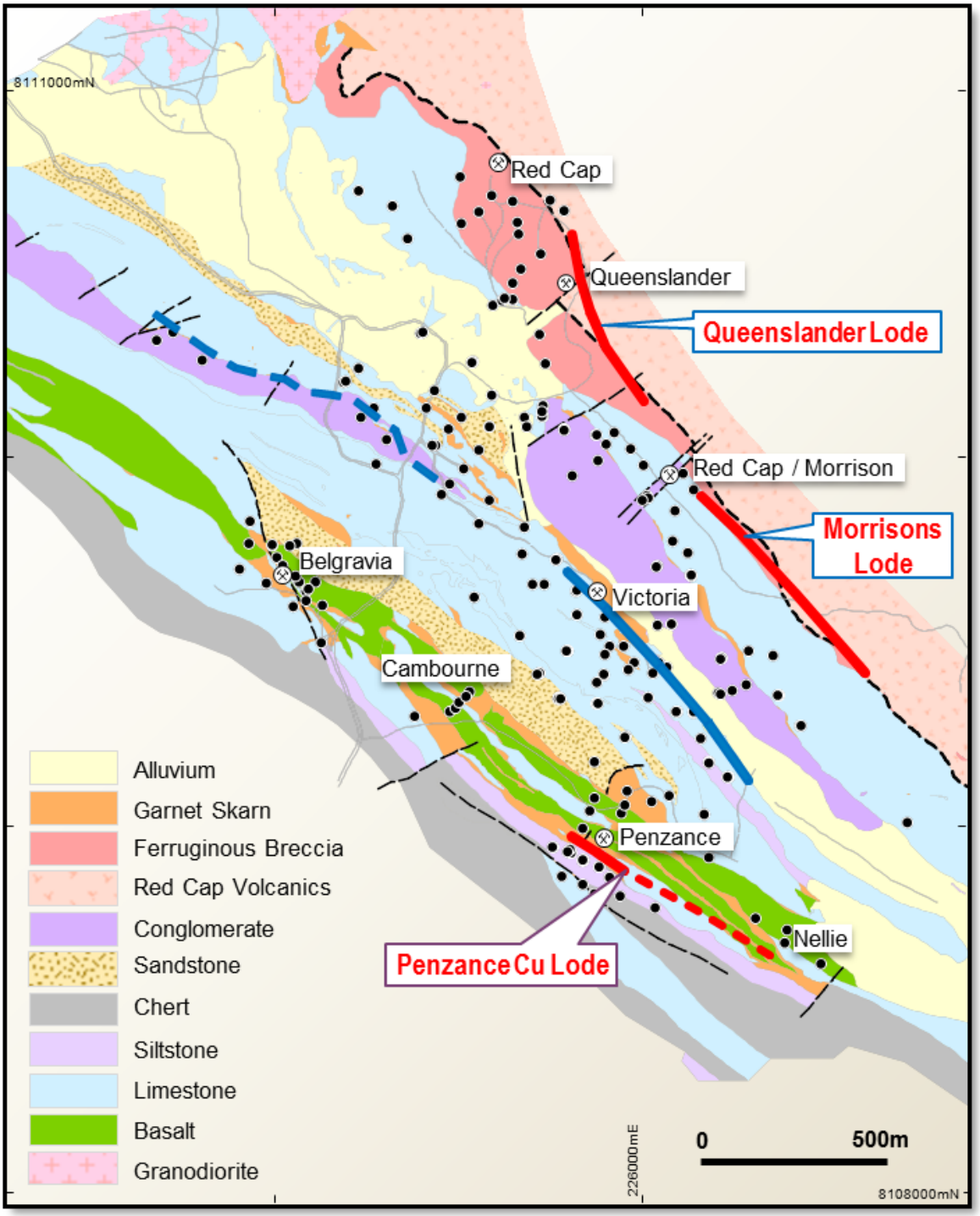

Figure 2 – Local Geology and Drill Hole Collar Locations for the Red Cap Project

At Red Cap, four northwest striking mineralisation trends are developed along sub-parallel lithological contacts located approximately 300-400m apart. The Queenslander and Morrisons lodes are located on the Red Cap - Morrisons Line and the Penzance lode is located on the Belgravia – Penzance Line.

The Queenslander and Morrison lodes both lie on the Red Cap thrust, a moderately south west dipping thrust fault along which the Chillagoe Formation has been juxtaposed against the Late Carboniferous dacitic ignimbrites of the Red Cap Volcanics. The mineralisation that makes up the two lodes extends for over 1.5km along the Red Cap thrust. The thrust is expressed at surface as a prominent ridge of ferruginous and siliceous breccia and localised garnet skarn. Queenslander and Morrisons are named after historic workings located along the thrust with the Queenslander lode being defined as west of local grid easting 5400 and the Morrisons lode being east of local grid easting 5400.

Sphalerite is the main zinc sulphide mineral found with copper being in the form of Chalcopyrite and lead in the form of Galena. A close association exists between sphalerite-chalcopyrite (+/- minor galena and gold) and garnet-pyroxene-magnetite-pyrrhotite skarns.

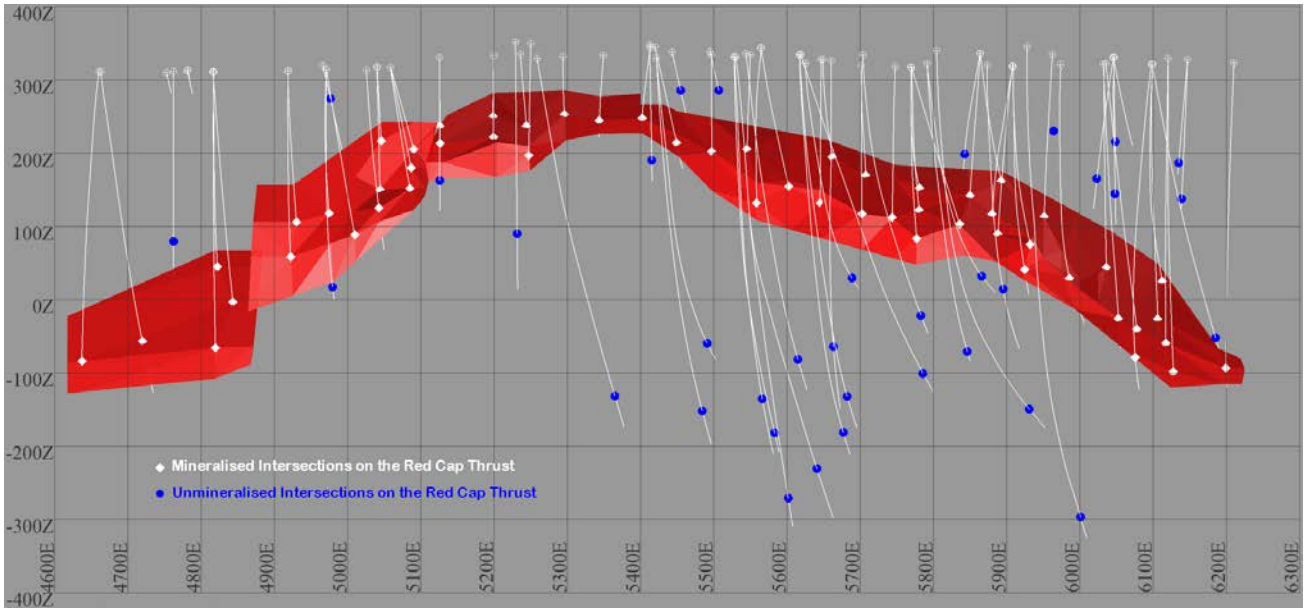

Figure 3 – Long Section of the Queenslander Morrisons deposits showing drill traces

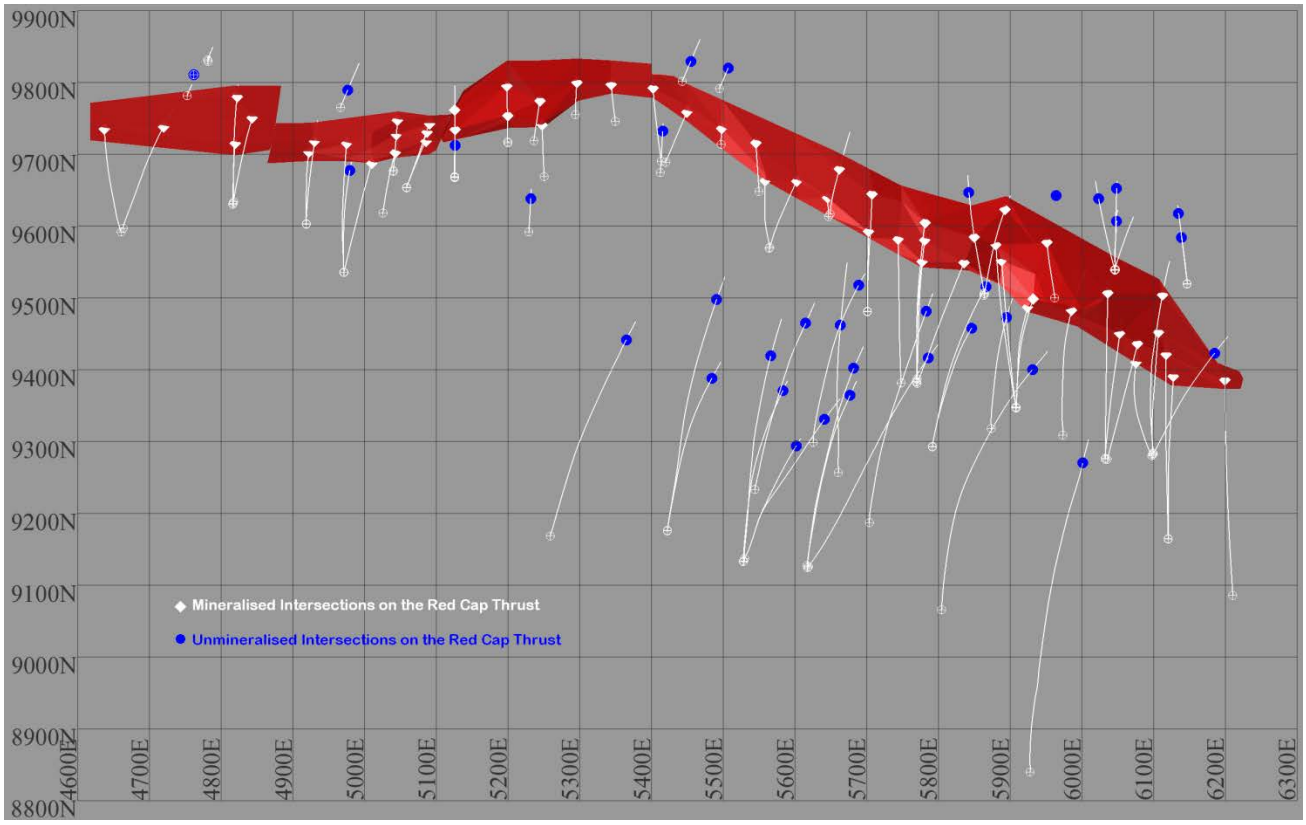

Figure 4 – Plan view of the Queenslander Morrisons deposits showing drill traces (Note several holes that are unmineralised on the Red Cap thrust targeted the Victoria prospect to the west)

The Penzance deposit is located adjacent to the historical Penzance copper open pit, defined at surface by numerous old copper workings. The Penzance deposit is the last resource discovered by Kagara in 2011 prior to voluntary administration in 2012. Locally the geology comprises a north west trending, steeply dipping sequence of massive chert, intercalated fine to medium grained sandstones/siltstones and marble with variable amounts of garnet (+/- pyroxene) skarn alteration.

Copper and zinc mineralisation is developed primarily within the massive garnet skarn at the contact between marble and basalt. Mineralisation is characterised by semi-massive sulphide composed of chalcopyrite and sphalerite with variable amounts of pyrrhotite and pyrite. Drilling has defined a zone of mineralisation over approximately 200 metres of strike with a central, high grade, copper rich core plunging between 40 and 50 degrees towards the south east.

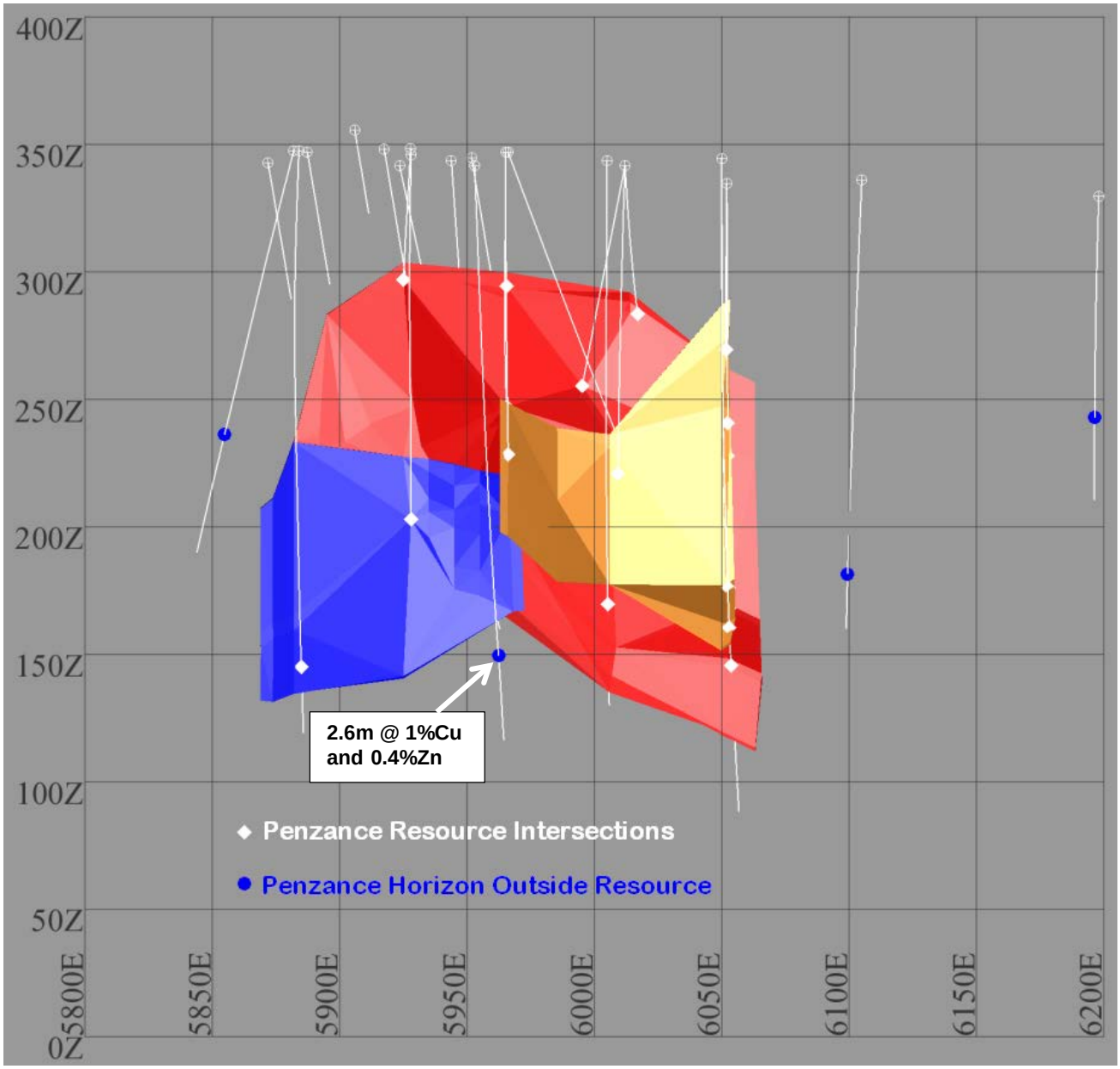

Figure 5 – Long Section of the Penzance deposit showing drill traces

The Penzance deposit has only been drill tested to 200m vertical depth. The resource remains open down dip with only one hole intesecting the prospective horizon below the current outlined resource (drill hole 1221 containing 2.6m @ 1%Cu and 0.4%Zn). Whilst this intersection was not included in the resource estimate it is strong evidence that the mineralised system at Penzance continues at depth. Drilling this field season will target potential depth extensions to the existing mineralisation.

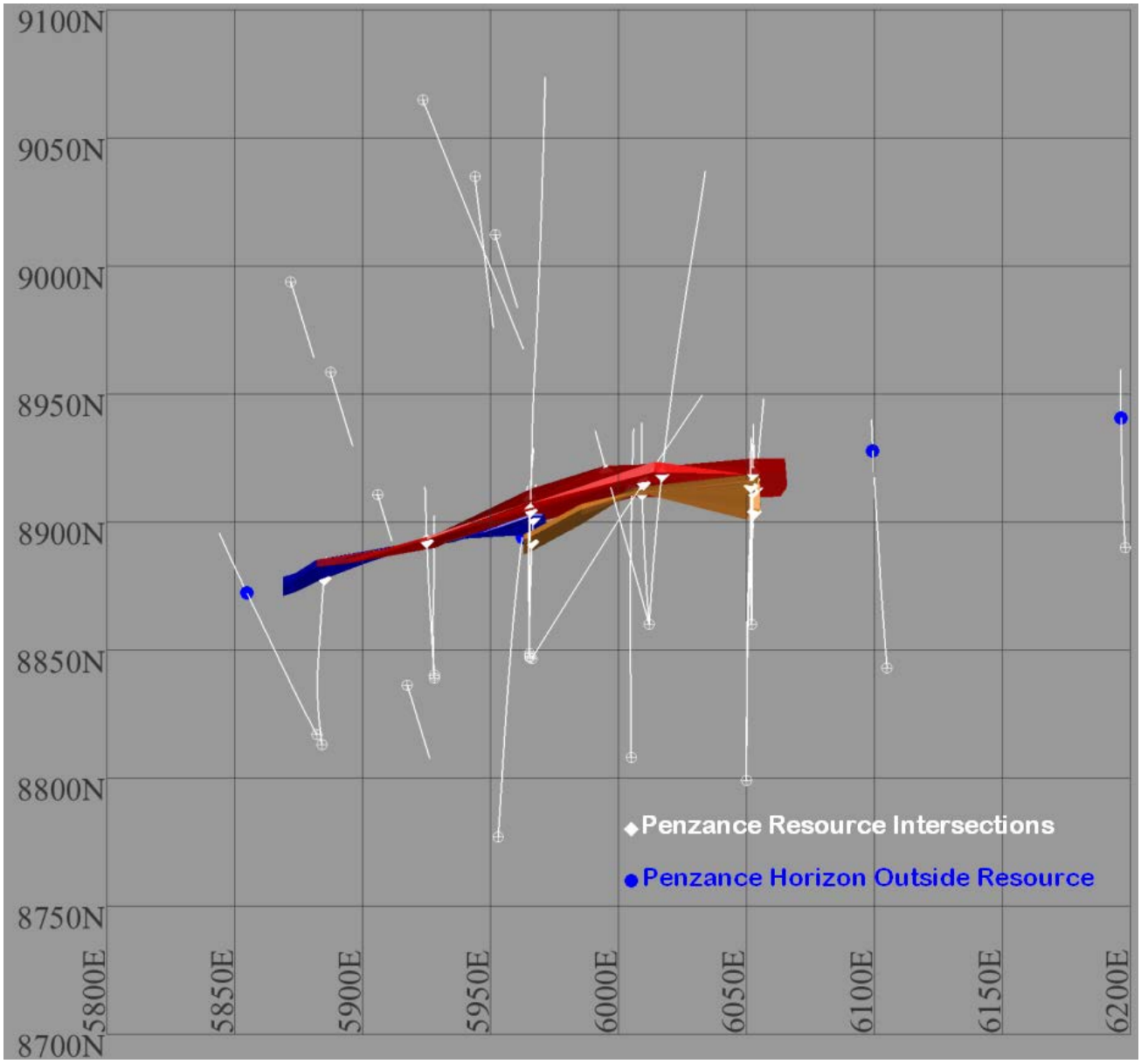

Figure 6 – Plan view of the Penzance deposit showing drill traces

Competent Person's Statement
The information in this report that relates to Mineral Resources is based on information compiled by Mr Andrew Beaton. Mr Beaton is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience 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 (the "JORC Code"). Mr Beaton is a full time employee of Mungana Goldmines Ltd. Mr Beaton consents to the inclusion in this report of the Mineral Resources in the form and context in which they appear.

ENDS

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SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code Explanation	Commentary
Sampling techniques	*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.*	The Penzance, Queenslander and Morrisons deposits have been sampled using diamond core (DD) drilling. Drilling has been carried out on a nominal 50m x 50m grid spacing with minimal drilling at closer spacing. A total of 22 intersections from 16 DD holes (NQ) totalling 3,685.6m were utilised in the Penzance resource estimate. Three of the diamond holes had RC pre-collars with the remainder being cored from surface. A total of 24 intersections from 24 DD holes (NQ) totalling 5,712.5m were utilised in the Queenslander resource estimate. Six of the diamond holes had RC pre-collars with the remainder being cored from surface. A total of 30 intersections from 30 DD holes (NQ) totalling 10,002.6m were utilised in the Morrisons resource estimate. Seven of the diamond holes had RC pre-collars with the remainder being cored from surface. All holes were drilled by Kagara Ltd in the 2008, 2011 and 2012 field seasons. With few exceptions, all holes were drilled towards an azimuth of approximately 37 degrees magnetic (local grid north) to at an average dip of -60 degrees in order to intersect the steep southerly dipping ore zones at the most optimal angle.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Collar locations were picked-up by Kagara staff surveyors using a Trimble RTK GPS unit. All collar locations were recorded in the companies SQL database. One drill hole (1215) was not able to be located during the survey and as such the design co-ordinates have been used. All drill-holes were routinely surveyed with a Ranger Explorer multi-shot digital downhole camera at varying intervals, usually 30 metres but also more closely spaced intervals, depending on the amount of deviation. Two surveyed base stations were used to test all down-hole cameras for accuracy. Certified standards were inserted into sample sequences according to Kagara QAQC procedures. Duplicate samples for selected samples were also taken. Five base metal certified reference materials were utilised as standards. The QAQC results demonstrate that the sample data is of sufficient quality to build a reliable resource estimate.

	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	Mineralised diamond core as well as zones adjacent to mineralisation was split using a diamond saw. Half core samples were taken for analysis from all diamond holes. Remaining core has been kept for reference with some quarter core sent to cold storage for future metallurgical studies. Sample intervals ranged from 0.8m to 2.7m, averaging 1.9m, but were nominally 2m with adjustments made to match lithological contacts. Over 50% of sample intervals utilised in the resource estimate were 2m or more. All samples were submitted to SGS Laboratories in Townsville for analysis. Sample preparation involved drying, crushing to 5-6mm and, if necessary, riffle splitting this material to 2.5 to 3kg. The sample was then pulverised in an LM5 bowl pulveriser, such that >85% of the sample was -75 microns, before scooping out a 200gm pulp for analytical determinations. All samples were assayed for Au, Cu, Pb, Zn, Ag, As, Mo, Bi, Ni, Cr, Sn, W, Sb and Te. Analysis for Au was by fire assay method FAA505, with lead collection from a 50gm charge, acid digest and AAS finish (detection limit 0.01ppm) First pass analysis on all samples were conducted for Cu, Pb, Zn, Ag, As, Mo, Bi, Ni and Cr by method ICP21R (perchloric acid digest, ICPOES finish). First pass analysis for Sn, W, Sb and Te were completed by method IMS40Q (four acid digest – ie as for ICP23Q + hydrofluoric acid, ICPMS finish). Samples with results above the upper detection limits were re-assayed by various means as follows; Cu, Zn and As > 10,000ppm, Pb > 5,000ppm and Ag > 100ppm by either methods ICP23Q or AAS22D; both triple acid digest methods with 0.2gm charge and ICP finish for ICP23Q, and 1gm charge with AAS finish for method AAS22D; Mo and Sb > 1,000ppm by method ICP40Q; Sn > 1,000ppm by either ICP40Q or XRF fusion methods XRF78S or XRF78O.

Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	At Penzance Kagara completed 22 diamond drillholes holes in 2 campaigns between 2011 and 2012. Diamond holes ranged in depth from 102.4m to 828.6m. Excluding the deepest hole (1104) which was pushed through to test the Victoria deposit, the average depth of the holes around Penzance is 198m. Of the 22 holes drilled 19 were diamond cored from surface and 3 had RC pre-collars. Of the 22 holes drilled 16 provided intersections that have been used in the resource estimate. At Queenslander and Morrisons Kagara completed a total of 82 diamond drill holes in 3 campaigns between 2008 and 2012. Diamond holes ranged in depth from 104.4m to 667m with an average depth of 349.3m. Approximately 15% of holes were pre-collared. Of the 82 holes drilled 54 provided intersections that have been used in the resource estimate. Kagara diamond holes were HQ or NQ2 sized core. All diamond core was oriented using an ACE tool. Kagara RC percussion pre-collars were drilled with a 140mm face sampling hammer. All Kagara drillholes had magnetic downhole surveys taken using a Ranger explorer multishot digital camera. Survey intervals were nominally 30m. Stainless steel rods were used at the base of the RC percussion rod string for accurate magnetic surveys.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Diamond core recovery is logged and recorded in the database. No significant core loss issue exists. The average core recovery is 97.7% and is over 99.6% for samples from the mineralised zones. No RC samples were used in any of the resource estimations.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Ground conditions encountered at Penzance, Queenslander and Morrisons were very good for diamond drilling and recoveries consistently high. Diamond core was reconstructed into continuous runs for orientation marking as per the Kagara procedure. Depths were checked against the core blocks.
	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.	Sample recovery for diamond holes is generally very high (over 99%) within the mineralised zones. Ground conditions for drilling were good. No significant bias is expected.

Logging	*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.*	Diamond core was geotechnically logged for recovery, RQD, weathering, hardness and strength. All diamond core and RC pre-collars were geologically logged for lithology, mineralogy, and oxidation state and structure. A percentage estimate for key minerals was also recorded along with a summary comment. Diamond core trays and RC chip trays are stored on site for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond core and RC chip samples recorded primary and secondary lithology, mineralogy, mineralisation, structure (core only), oxidation, and any other significant feature. Diamond core was photographed after mark up, before sampling with both dry and wet photographs recorded.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Mineralised diamond core as well as zones adjacent to mineralisation was split using a diamond saw. All core was cut in half with half core being sent for analysis. Selected zones were also cut into quarters and some quarter core is being stored in freezers for future metallurgy test work.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No non-core samples were taken.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation involved drying, crushing to 5-6mm and, if necessary, riffle splitting this material to 2.5 to 3kg. The sample was then pulverised in an LM5 bowl pulveriser, such that >85% of the sample was -75 microns, before scooping out a 200gm pulp for analytical determinations.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial assay standards. The insertion rate of these averaged 1:20.
	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.	No field duplicates were taken for drill core.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the base metal skarn mineralisation at Penzance, Queenslander and Morrisons.

Quality of assay data and laboratory test	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Analysis for Au was by fire assay method FAA505, with lead collection from a 50gm charge, acid digest and AAS finish (detection limit 0.01ppm) First pass analysis on all samples were conducted for Cu, Pb, Zn, Ag, As, Mo, Bi, Ni and Cr by method ICP21R (perchloric acid digest, ICPOES finish). First pass analysis for Sn, W, Sb and Te were completed by method IMS40Q (four acid digest – ie as for ICP23Q + hydrofluoric acid, ICPMS finish). Samples with results above the upper detection limits were re-assayed by various means as follows; Cu, Zn and As > 10,000ppm, Pb > 5,000ppm and Ag > 100ppm by either methods ICP23Q or AAS22D; both triple acid digest methods with 0.2gm charge and ICP finish for ICP23Q, and 1gm charge with AAS finish for method AAS22D; Mo and Sb > 1,000ppm by method ICP40Q; Sn > 1,000ppm by either ICP40Q or XRF fusion methods XRF78S or XRF78O.
	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.	A handheld magnetic susceptibility meter (KT-10) was used to measure magnetic susceptibility for every meter. Data is stored in the drilling database.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	The QAQC data includes standards, blanks, and laboratory checks. Standards have been added at a ratio of 1:20 and blanks 1:25.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All sampling was routinely inspected by senior geological staff. Significant intersections are inspected by senior geological staff and corporate staff.
	The use of twinned holes.	No holes have been twinned as all resources are at the inferred stage and the deposits are still considered quite immature.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Logging is undertaken by qualified geologists at the Chillagoe core processing facility. Data is initially recorded on paper before being entered into standard Excel templates. Data is then sent to a database administrator for validation and storage in the Datashed relational database.
	Discuss any adjustment to assay data.	Frequency distribution of the composites resulted in top cuts for Cu, Pb Ag and Au within the Morrisons lode (97.5 percentile) and Zn, Cu and Au within the Queenslander lode (99, 99 and 97.5 percentiles respectively). No adjustments were applied to any of the Penzance assay data.

Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Collar locations were picked-up by Kagara staff surveyors using a Trimble RTK GPS unit. These instruments provide accuracy within 0.6m. All drill-holes have magnetic down-hole surveys taken at approximate 30m intervals using a Ranger explorer multishot digital camera
	Specification of the grid system used.	The grid system is MGA_GDA94, zone 55. A local grid system was established on site.
	Quality and adequacy of topographic control.	AAMHatch Pty Limited (AAM) was commissioned to fly aerial photography of the area in December 2005 to obtain a detailed topographic surface. AAM provided a Digital Terrain Model (DTM) surface with a vertical and horizontal accuracy of 0.1m
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal drill hole spacing for each of the resource estimates is 50m x 50m.
	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.	The data spacing and distribution is sufficient to demonstrate both geological and grade continuity within the mineralised domains to support the definition of Inferred Mineral Resources under the 2012 JORC code.
	Whether sample compositing has been applied.	2m assay composites were utilised.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The majority of holes have been drilled towards grid north to intersect the east-west striking ore zones at near perpendicular angles. Holes are predominantly drilled at -60 towards the skarn units to return intervals with thickness as true as possible.
	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.	No orientation based sampling bias has been identified in the data.
Sample security	*The measures taken to ensure sample security.*	Samples were stored in sealed polyweave bags at the Chillagoe core processing facility. They were delivered to SGS laboratories in Townsville by a local transport company.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques are consistent with industry standards. No external audits or reviews of sampling techniques have been carried out.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	*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.*	The Red Cap project which contains the Penzance, Queenslander and Morrison deposits is 100% owned by Mungana Goldmines Limited. The project is located within EPM15458.
	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.	The tenement is in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Mungana Goldmines Ltd secured 100% ownership of EPM15458 as part of the Chillagoe base metals acquisition from Kagara Ltd in July 2014. Kagara purchased the project in 2003 from Nuigini Mining Australia Pty Ltd as part of the Red Dome acquisition. EPM15458 was previously part of the larger EPM10387 held by Nuigini Mining. Whilst the Penzance deposit was a virgin discovery by Kagara, the greater Red Cap project area, which contains Penzance, Queenslander and Morrisons is an historical mining area. The Queenslander and Morrisons mines which were sizeable underground operations and the Penzance (not the same orebody) open cut contributed ore feed to the Chillagoe smelters in the early 1900's. Kagara successfully defined new mineralisation at several other prospects within the Red Cap project area.
Geology	*Deposit type, geological setting and style of mineralisation.*	Information relating to the geology and interpretation are included in Section 3.
Drill hole information	*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:* *• easting and northing of the drill hole collar* *• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *• dip and azimuth of the hole* *• down hole length and interception depth* *• hole length.* *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 this is the case.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources. Notes relating to drill hole information relevant to the Mineral Resource estimates has been included in Section 1. A table containing all drill intersections utilised in the Mineral Resource estimates is included as Appendix 1.

Data aggregation methods	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
	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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drill hole angles and the orientation of mineralisation is covered in Section 1.
	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').	Not applicable.
Diagrams	*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.*	Refer to the diagrams that have been included in the body of the text.
Balanced reporting	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.

Other substantive exploration data	*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.*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	No exploration results are being reported, and thus, this section is not material to this report on Mineral Resources.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	JORC Code Explanation	Commentary
Database integrity	*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.*	A set of standard Excel templates are used to capture the data. These sheets are then sent to a database administrator for validation and storage in Datashed. Data used in the Mineral Resource estimates is sourced from a dataset provided in the form of an MS Access databases, from the companies Datashed relational database. Relevant tables from the database are exported to the relevant format for use in the Mineral Resource estimate.
	Data validation procedures used.	Validation of data occurs during import into Datashed. The checks include overlapping intervals, missing survey data, missing collars, duplicate sample numbers and incorrectly recorded assay data.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The competent person has visited the project on numerous occasions. Drill core from the project has been reviewed and multiple visits to the project area have been undertaken.
	If no site visits have been undertaken indicate why this is the case.	Not applicable

Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Confidence in the geological interpretation of the Penzance, Queenslander and Morrison deposits is considered to be good. The Penzance deposit is located on the skarnified sheared contacts and within the sediments of the Chillagoe formation. The sediment sequence is well understood and drill density is sufficient to allow reasonable levels of confidence in the continuity of the massive to semi-massive sulphide lenses that makeup the Mineral Resource. The Queenslander and Morrison lodes are located on the Red Cap thrust, a south-west dipping thrust fault along which the sediments of the Chillagoe Formation have been juxtaposed against the dacitic ignimbrites of the Red Cap volcanics. The thrust can be traced at surface for over 2.5km and drill intersections have pinpointed the thrust over 1.5km allowing reasonable levels of confidence in the continuity of massive to semi-massive sulphide lenses.
	Nature of the data used and of any assumptions made.	Drilling data has provided information on lithology, alteration and mineralisation that has formed the basis of the geological interpretation.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The diamond drilling to date supports the geological interpretation of the Red Cap project area.
	The use of geology in guiding and controlling Mineral Resource estimation.	The Penzance, Queenslander and Morrison deposits form part of the Red Cap group of prospects, hosted within the Siluro-Devonian aged Chillagoe Formation of the early to middle Palaeozoic Hodgkinson Province. The Penzance deposit is located adjacent to the historical Penzance copper open pit, defined at surface by numerous old copper workings and dumps. Locally, the geology comprises a north-west trending, steeply dipping sequence of (from south-west to north-east) massive chert, intercalated fine- to medium-grained sandstone / siltstone and marble with variable amounts of garnet ± pyroxene skarn developed at the contacts, and finally massive fine-grained basalt with patchy feldspar-pyroxene skarn alteration. Copper-zinc mineralisation is developed predominately within massive garnet skarn at the contact between marble and basalt, although Zn-rich mineralisation is also sporadically developed at other lithological contacts in the hanging wall. The footwall basalt, although skarn altered in places, does not contain any significant mineralisation. Mineralisation is characterised by disseminated to semi-massive chalcopyrite-sphalerite (± minor galena) with variable amounts of pyrrhotite>pyrite ± magnetite. Drilling has defined a zone of mineralisation over approximately 200m strike, with a central, high-grade, copper-rich core plunging between 40-50 degrees towards the south-east. Two north-south striking faults, defined during surface mapping, appear to have cut the mineralisation off along strike towards the north-west and south-east.

		The Queenslander and Morrison deposits are located below historical workings on the Red Cap thrust where sediments of the Siluro-Devonian Chillagoe Formation have been thrust over the top of the Late Carboniferous dacitic ignimbrites of the Red Cap Volcanics. Zinc-copper (+/- lead) mineralisation is developed within garnet-pyroxene-magnetite skarn at the contact between marble of the Chillagoe Formation and Red Cap Volcanics. Mineralisation is characterised by semi-massive to massive sphalerite (+/- chalcopyrite) with variable amounts of pyrite>pyrrhotite>galena +/- magnetite. Drilling has defined a zone mineralisation over approximately 1500m of strike. The Queenslander lode has a plunge of approximately 30 degrees towards local grid west whilst the Morrisons lode plunges approximately 20 degrees towards local grid south east. Two cross cutting faults have been identified on the Queenslander lode. These faults have displace the ore horizon by up to 50m.
	The factors affecting continuity both of grade and geology.	The Penzance deposit remains open at depth but is considered to be closed along strike to a depth of 200m. The Queenslander deposit is open down plunge to the west and also down dip. The Morrisons deposit is open down plunge to the south east.
Dimensions	*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*	The Penzance Mineral Resource is contained within two mineralised lenses. It stretches for approximately 200m along strike. The width of the main lens varies from over 8m to less than 1m, whilst the second lens is about 2m thick. Mineralisation commences at 50m below surface and extends to over 200m below surface. The Queenslander Mineral Resource is contained within three mineralised lenses that are all located on the Red Cap thrust. The lenses are offset by cross cutting faults that have displaced the mineralisation by up to 50m. The Queenslander lode extends for over 750m along strike. The width of the ore varies from 1m at the margins to over 13m at its core and is on average 4.5m thick. Mineralisation commences at 50m below surface and extends to over 450m below surface. The Morrisons Mineral Resource is contained within one continuous mineralised lens on the Red Cap thrust. It extends for over 800m along strike with widths ranging from 1m around the margins to 12m at its thickest with an average width of 4.5m. Mineralisation commences at 60m below surface and extends to over 450m below surface.

Estimation and modelling techniques	*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.*	Grade estimation for Penzance was by Inversed Distance Squared (IDS) using Surpac software. The elements estimated into the block model were Zn%, Pb%, Cu%, As%, Au ppm and Ag ppm. Grade estimation for Queenslander and Morrisons was by Ordinary Kriging (OK) using Surpac software. The elements estimated into the block model were Zn%, Pb%, Cu%, As%, Au ppm and Ag ppm. For all three deposits drill hole sample data was flagged using domain codes generated from three dimensional wireframes of the mineralised domains that make up the resources. Sample data was composited to 2m best fit downhole sample lengths. After reviewing histograms and cumulative frequency plots it was determined that top cuts were not required for Penzance but were suitable in some instances at Queenslander and Morrisons. Top cuts for Cu, Pb Ag and Au within the Morrisons lode (97.5 percentile) and Zn, Cu and Au within the Queenslander lode (99, 99 and 97.5 percentiles respectively) were applied. Assay and composite data was checked for clustering. Spatial observation of the dataset indicates only minor to no clustering exists and as such, no de-clustering process was deemed necessary. At Penzance two domains were created within the main lens of mineralisation based on either Cu or Zn being the dominant mineral. A third domain was created for a separate lens of mineralisation. No domaining was required within the Queenslander or Morrisons lodes. At Penzance the maximum search distance along the major axis was 100m, based on drill spacing. At Queenslander the maximum search distance along the major axis was 100.8m based on the variography. At Morrisons the maximum search distance along the major axis was 147.8m based on the variography.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No mine production records are available for Penzance, Queenslander or Morrisons. This Mineral Resource estimate is based on a previous JORC 2004 estimate carried out by Kagara Ltd.
	The assumptions made regarding recovery of by-products.	No assumptions have been made.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Estimation of As was carried out as it is a potential penalty element.

	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The deposits were each drilled on nominal 50m-spaced north-south (local grid) sections. The block models were constructed using a 5mN by 10mE by 10mRL parent block size with sub-blocking to 1.25mN by 2.5mE by 2.5mRL for domain volume resolution. All estimation was completed at the parent cell scale. Discretisation was set to 3 by 3 by 3 for all domains. For Penzance the size of the search ellipse for each domain was based on the nominal drillhole spacing for the deposit. Along the major axis it was 100m and the vertical distance was 50m. At Queenslander the size of the search ellipse was based on the results of variography. Along the major axis it was 100.8m and the vertical search distance was 50m. At Morrisons the size of the search ellipse was based on the results of variography. Along the major axis it was 147.8m and the vertical search distance was 50m.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate
	Any assumptions about correlation between variables.	No assumptions about correlation between variables has been considered in the estimation.
	Description of how the geological interpretation was used to control the resource estimates.	The geological interpretation was the basis of the mineralised domains for each of the estimates. These domains were used as hard boundaries to select sample populations for grade estimation.
	Discussion of basis for using or not using grade cutting or capping.	Histograms, cumulative frequency plots and log probability plots for each element were used to determine if top cutting was necessary. No top cuts were utilised for Penzance but they were deemed suitable in some instances at Queenslander and Morrisons. Top cuts for Cu, Pb Ag and Au within the Morrisons lode (97.5 percentile) and Zn, Cu and Au within the Queenslander lode (99, 99 and 97.5 percentiles respectively) were applied.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	A volumetric comparison of the resource wireframes and the block model showed no abnormalities. Domain block estimate grades were compared to average composite grades and showed good correlation. Visual validation of grade trends and metal distributions were carried out. No reconciliation data is available.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied*	The reported Mineral Resource estimates are reported as the total material within the mineralised domains, so no cut-off grade has been adopted for reporting purposes.

Mining factors or assumptions	*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.*	Mining of the Penzance, Queenslander and Morrisons deposits would be predominantly by underground mining methods. The geometry of the deposits will make them amenable to sub-vertical narrow ore mining methods currently employed in many operations in similar deposits around the world, including the nearby Mungana deposit which was successfully mined by Kagara over several years. No assumptions in mining methodology have been made when estimating this Mineral Resource.
Metallurgical factors or assumptions	*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.*	No assumptions in metallurgical amenability have been made when estimating the Mineral Resources.
Environmental factors or assumptions	*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*	No assumptions have been made.
Bulk density	*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.*	Bulk density of the mineralised material was estimated via inverse distance squared at Penzance and ordinary kriging at Queenslander and Morrisons using diamond drillhole bulk density determinations. The density values for each sample were calculated by the Archimedes Principle (mass of the sample in air divided by the difference between the mass of the sample in air and the mass of the sample in water). Density measurements were generally taken on the entire sample interval of uncut drill core within the assay interval. Some later density measurements were taken on the entire sample interval of cut core within the assay interval. A standard rock was used to check reliability of measurements.

	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.	The majority of samples taken were fresh and did not contain voids. Whilst some porosity can be expected the bulk density assigned is considered to be reasonable.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The same methods have been used to assign bulk density values to the various waste rock types.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Mineral Resource classification of Inferred for Penzance, Queenslander and Morrisons is based on the level of confidence in the geological and grade continuity, along with the drill density.
	Whether appropriate account has been taken of all relevant factors (i.e. 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).	The Inferred classification has taken into account all available geological and sampling information, and the classification level is considered appropriate for the current stage of this project.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits of the Mineral Resource estimate have been undertaken at this time.
	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 relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Inferred classification as per the guidelines of the 2012 JORC Code.
	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.	The statement relates to global estimates of tonnes and grade.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data is available.

Appendix 1: Red Cap Project Mineral Resource Drill Hole Summary

Hole No.	East_Local	North_Local	East_MGA	North_MGA	Azim_M	Dip	Depth	From	To	Interval	Zn %	Cu %	Pb %	Ag g/t	Au g/t	Prospect
947	4663.1	9597.4	225415.4	8110331.5	50	-70	474.7	417.3	420.4	3.1	2.60	0.20	1.73	28	0.02	Queenslander
974	5973.7	9308.9	226175.7	8109224.8	40	-60	426.8	319.1	321.9	2.8	5.03	0.62	0.00	38	0.01	Morrisons
977	6100.0	9283.5	226250.6	8109119.9	30	-60	438.8	372.8	374.4	1.6	8.36	0.15	0.02	6	0.01	Morrisons
978	6097.6	9280.5	226246.8	8109119.3	10	-75	475.1	422.2	426.7	4.5	5.89	0.20	0.00	3	0.01	Morrisons
981	5649.1	9617.1	226149.3	8109671.8	40	-70	252.7	148.6	151.5	2.9	2.22	0.53	0.03	12	0.44	Morrisons
1086	4817.0	9634.1	225553.0	8110253.1	37	-60	339.6	304.2	307.3	3.1	2.86	0.57	0.00	5	0.01	Queenslander
1087	4918.5	9603.6	225606.3	8110161.4	37	-65	297.7	236.5	255.4	18.9	4.71	0.66	0.00	13	0.03	Queenslander
1088	5025.4	9618.6	225694.6	8110099.3	45	-65	270.7	207.3	218.0	10.7	7.47	0.53	0.00	6	0.02	Queenslander
1089	5769.5	9383.2	226077.3	8109418.7	37	-57	312.3	288.1	301.0	12.9	2.50	0.27	0.09	10	0.02	Morrisons
1090	5769.4	9383.8	226077.7	8109419.1	37	-45	305.7	278.1	285.3	7.2	4.50	0.60	0.00	8	0.15	Morrisons
1091	5770.0	9380.7	226076.0	8109416.5	57.5	-51	321.2	280.7	295.5	14.8	7.90	0.72	0.00	19	0.02	Morrisons
1099	5908.8	9347.2	226154.5	8109297.2	37	-60	351.5	288.2	303.0	14.8	12.20	1.16	1.78	97	0.01	Morrisons
1100	5908.8	9347.0	226154.3	8109297.0	37	-65	350.5	311.7	312.7	1.0	2.70	0.11	0.00	5	0.01	Morrisons
1101	5908.4	9347.4	226154.4	8109297.6	26	-45	332.7	305.1	311.0	5.9	2.50	0.39	0.03	7	0.06	Morrisons
1102	6032.4	9276.7	226196.5	8109161.2	37	-50	390	361.1	364.2	3.1	4.88	1.71	0.01	69	0.39	Morrisons
1103	6032.4	9275.7	226195.9	8109160.4	39	-65	435.6	389.6	398.2	8.6	7.37	0.57	0.10	32	0.05	Morrisons
1104	5927.9	8839.6	225821.5	8108913.3	35	-60	828.6	109.0	111.3	2.3	3.33	3.68	0.08	110	0.39	Penzance
1105	5928.0	8839.2	225821.2	8108912.9	35	-68	180.7	152.7	154.2	1.5	3.57	0.46	0.00	9	0.03	Penzance
1127	6099.0	9284.0	226250.6	8109119.9	36	-66	411.6	386.7	390.6	3.9	7.42	0.24	1.09	18	0.04	Morrisons
1128	6036.0	9277.0	226200.0	8109159.0	51	-67	417.2	399.8	408.2	8.4	4.07	1.23	0.05	39	0.04	Morrisons
1129	6210.3	9085.9	226196.1	8108900.2	35	-56	546.4	514.4	520.4	6.0	4.85	0.15	0.08	7	0.02	Morrisons
1130	5908.0	9348.1	226154.5	8109298.4	29	-48	326.5	307.5	312.3	4.8	4.56	0.53	0.14	10	0.05	Morrisons
1131	5927.9	8840.1	225821.8	8108913.7	35	-45	102.4	73.6	74.7	1.1	3.98	2.77	0.00	60	0.48	Penzance
1132	4816.7	9631.9	225551.3	8110251.7	35	-77	408.6	386.1	389.6	3.5	2.18	0.44	0.02	6	0.02	Queenslander
1133	4918.6	9602.8	225605.8	8110160.8	35	-68	315.4	273.2	282.6	9.4	4.28	0.72	0.00	5	0.02	Queenslander
1134	5125.4	9668.3	225801.7	8110067.3	37	-60	189.5	132.5	145.5	13.0	8.55	0.93	0.00	12	0.04	Queenslander
1135	5125.4	9669.3	225802.4	8110067.9	37	-45	179.9	131.5	136.4	4.9	3.11	0.52	0.01	7	0.03	Queenslander
1138	4970.9	9536.0	225598.4	8110076.3	35	-48	281.9	266.1	273.2	7.1	0.63	0.67	0.00	8	0.01	Queenslander
1139	4660.3	9592.2	225409.8	8110329.6	20	-69	441.5	421.1	426.8	5.7	4.83	0.11	0.86	22	0.01	Queenslander
1140	5864.0	9505.8	226230.1	8109443.7	27	-67	240.4	210.4	216.6	6.2	2.13	0.49	0.00	5	0.01	Morrisons
1142	5863.8	9504.0	226228.8	8109442.5	47	-55	249.4	213.5	217.9	4.4	6.14	0.18	0.00	7	0.01	Morrisons
1143	5962.3	9500.3	226298.2	8109372.4	28	-70	252.5	234.7	236.7	2	9.63	0.35	20.20	102	0.02	Morrisons
1150	5199.6	9716.2	225888.7	8110051.5	35	-71	138.4	117.6	124.2	6.6	10.86	0.16	0.36	11	0.05	Queenslander
1151	5199.6	9717.9	225889.8	8110052.8	35	-47	125.5	113.7	120.3	6.6	1.40	0.60	0.00	2	0.06	Queenslander
1152	5235.7	9719.1	225917.0	8110029.0	45	-60	132.4	113.5	119.5	6	2.29	0.26	0.01	7	0.02	Queenslander
1153	5040.0	9676.6	225745.0	8110131.7	42	-73	192.7	175.8	183.6	7.8	1.46	0.63	0.32	8	0.04	Queenslander
1154	5040.1	9677.4	225745.6	8110132.2	42	-55	143.9	123.3	129	5.7	14.33	0.85	0.41	14	0.27	Queenslander
1155	4971.1	9535.6	225598.2	8110075.8	50	-55	297.4	274.6	278.6	4	6.83	0.95	0.03	22	0.03	Queenslander
1156	4816.0	9630.3	225549.7	8110251.0	47	-68	351.5	337.6	339.2	1.6	4.12	0.39	0.01	8	0.02	Queenslander
1157	5413.3	9690.6	226027.3	8109886.8	30	-46	158.4	141.1	142.2	1.1	19.00	0.02	0.02	6	0.02	Queenslander
1158	5701.3	9480.9	226094.3	8109536.7	36	-61	279.5	231.4	248.6	17.2	4.37	0.32	0.00	6	0.02	Morrisons
1159	5701.3	9481.7	226094.8	8109537.2	36	-47	252.3	222.2	227.6	5.4	5.66	0.34	0.05	6	0.02	Morrisons
1162	5565.1	9570.6	226056.1	8109695.3	25	-63	252.4	231.6	237.9	6.3	2.37	0.78	0.00	6	0.44	Morrisons
1163	5564.2	9569.2	226054.5	8109694.9	55	-60	234.4	214.6	220.2	5.65	1.87	0.70	0.00	7	0.29	Morrisons
1165	5646.6	9613.4	226145.0	8109670.9	35	-81	219.5	198.2	206.8	8.6	2.61	0.61	0.00	5	0.09	Morrisons
1166	5549.9	9648.4	226098.2	8109762.5	34	-62	162.4	145.8	153.3	7.5	2.90	0.54	0.00	8	0.28	Morrisons
1167	5496.7	9713.9	226104.1	8109846.7	36	-80	153.8	134	137.7	3.7	2.51	0.52	0.00	6	0.01	Morrisons
1168	5349.3	9746.3	226018.5	8109971.2	29	-60	129.5	103	104.8	1.8	1.49	0.04	0.14	6	0.01	Queenslander
1169	5294.0	9755.4	225984.3	8110015.6	37	-60	104.4	90.2	96.2	6	2.55	0.32	0.43	9	0.03	Queenslander
1170	5250.2	9669.0	225893.4	8109982.4	34	-65	189.6	169	172.8	3.8	2.54	0.56	0.00	3	0.04	Queenslander
1192	5770.0	9387.2	226080.5	8109421.3	39	-46	296.5	274.8	284.6	9.8	3.75	0.26	0.00	5	0.02	Morrisons
1193	6120.3	9164.5	226184.1	8109019.0	36	-65	510.4	484.7	488.8	4.1	3.05	0.27	0.00	3	0.02	Morrisons
1194	6120.3	9164.8	226184.3	8109019.3	36	-59	501.4	466.2	470.7	4.5	8.35	0.42	0.70	29	0.03	Morrisons
1197	5747.8	9381.8	226060.5	8109432.5	35	-46	303.1	287.4	293.4	6	9.07	0.21	0.00	4	0.01	Morrisons
1198	5058.0	9647.0	225738.0	8110098.0	58	-59	182.9	160.2	168.2	8	6.31	0.41	0.03	8	0.01	Queenslander
1199	5058.0	9647.0	225738.0	8110098.0	58	-50	165.1	146.4	147.2	0.8	1.84	0.37	0.05	6	0.01	Queenslander
1200	5965.3	8847.7	225854.2	8108893.6	37	-60	153.6	117	124.8	7.8	1.35	2.51	0.03	49	0.17	Penzance
1201	5058.0	9647.0	225738.0	8110098.0	58	-68	201.3	179.9	191.1	11.2	5.88	0.41	0.00	8	0.03	Queenslander
1202	5968.0	8849.0	225856.0	8108892.0	37	-45	153.3	76.9	78.8	1.9	2.52	0.51	0.76	80	0.06	Penzance
1205	5968.0	8847.5	225856.0	8108892.0	37	-70	189.4	126.8	132.4	5.6	6.86	0.48	0.27	17	0.13	Penzance
and								152.7	154.7	2	10.20	0.67	0.01	11	0.03	Penzance
and								154.7	169	14.3	0.18	2.79	0.00	32	0.05	Penzance
1206	5969.0	8847.5	225856.0	8108892.0	69	-55	210.2	137.8	152.1	14.3	0.82	4.40	0.02	79	0.22	Penzance
1214	6009.4	8864.9	225898.2	8108876.1	42	-45	238.7	75.8	81.6	5.8	1.97	0.54	0.01	2	0.02	Penzance
1215	6012.0	8860.0	225898.0	8108875.0	22	-54	135.1	95.7	110.5	14.8	3.45	0.99	0.05	23	0.05	Penzance
1217	5881.6	8817.0	225772.2	8108928.4	30	-70	240.1	197.7	203.7	6	5.76	0.50	0.54	17	0.04	Penzance
1218	6008.0	8797.5	225851.2	8108827.7	36	-60	249.3	222.9	224.9	2	1.87	5.14	0.01	98	0.11	Penzance
1219	6049.5	8861.9	225925.5	8108846.4	37	-61	162.2	100.1	107.5	7.4	7.47	1.86	0.02	47	0.10	Penzance
and								118.2	123.3	5.1	3.89	1.44	0.07	31	0.93	Penzance
1220	6049.5	8862.4	225925.9	8108846.8	37	-50	114.2	81.9	83.5	1.6	3.91	1.69	0.01	51	0.19	Penzance
1222	6049.0	8801.2	225883.7	8108802.5	37	-56	229.6	204.4	205.2	0.8	2.05	0.63	0.01	18	0.61	Penzance
and								212.9	216.1	3.2	0.56	4.77	0.00	118	0.73	Penzance
1223	6049.0	8800.9	225883.5	8108802.2	37	-62	296.9	210.6	211.8	1.2	6.26	0.03	0.01	1	0.09	Penzance
and								222	230	8	2.22	0.68	0.00	14	0.05	Penzance
1224	6008.5	8863.8	225896.86	8108875.823	33	-68	201.3	120	124.2	4.2	6.65	0.52	0.23	27	0.07	Penzance
and								135.2	144.9	9.7	0.46	4.03	0.02	71	0.04	Penzance

Note: The mineralised interval lengths of intercepts shown in the above table are down-hole distances and are not corrected for angle of dip. True width is approximately 60% of downhole width for Penzance and 75% of the downhole width for Queenslander and Morrisons.

Appendix B: Charters Towers Exploration Report

CHARTERS TOWERS PROJECT

TENURE

Mungana Goldmines holds a significant footprint of exploration tenure in the Charters Towers district, comprising nine tenements covering an area in excess of 1,600 km^2:

Tenement	Granted	Expires	Holder	Sub-Blocks	Area Km2
EPM25132	25/11/2013	24/11/2018	Mungana Goldmines Ltd	100	320
EPM25133	28/11/2013	27/11/2018	Mungana Goldmines Ltd	87	279
EPM25134	20/11/2013	19/11/2018	Mungana Goldmines Ltd	33	106
EPM25135	20/11/2013	19/11/2018	Mungana Goldmines Ltd	79	254
EPM25148	25/11/2013	24/11/2018	Mungana Goldmines Ltd	34	109
EPM25270	8/04/2014	7/11/2019	Mungana Goldmines Ltd	3	10
EPM25271	8/04/2014	7/04/2019	Mungana Goldmines Ltd	46	147
EPM25437	4/07/2014	3/07/2019	Mungana Goldmines Ltd	100	321
EPM25680	2/04/2015	1/04/2020	Mungana Goldmines Ltd	29	93
			TOTAL	**511**	**1639**

DISTRICT ENDOWMENT

The Charters Towers District forms part of a world class mineral province. A variety of gold deposit styles are present, with major mining centers located at Charters Towers, Kidston, Pajingo, Ravenswood and Mt Leyshon. Over 15 million ounces of gold has been extracted from these mines, and production is ongoing (Figure 1).

The area also hosts a number of significant volcanic hosted massive sulphide deposits associated with the Mount Windsor subprovince. Over 9.1Mt of ore has been treated from variably Cu-Au dominant and Zn-Pb-dominant orebodies for production of 422kt Zn, 132kt Pb, 335kt Cu, and 122koz Au. Approximately 4Mt in base metal resources remains to be exploited from known deposits.

Many of the known mineral systems have been found in areas of exposure where traditional prospecting and surface geochemical exploration techniques have proved effective. Some of the later discoveries were driven by the recognition of the zoned character of some of the gold systems (e.g. Mt Wright), and through detection of blind VMS systems under cover (e.g. Waterloo and Orient).

A younger sedimentary cover sequence masks the basement over much of the area, raising the likelihood that other concealed mineral systems remain to be discovered. Mungana Goldmines has taken up ground positions on under-explored structural / stratigraphic trends projecting from the known mineralised systems (Figure 2). The company believes this will support the opportunity for further exploration success.

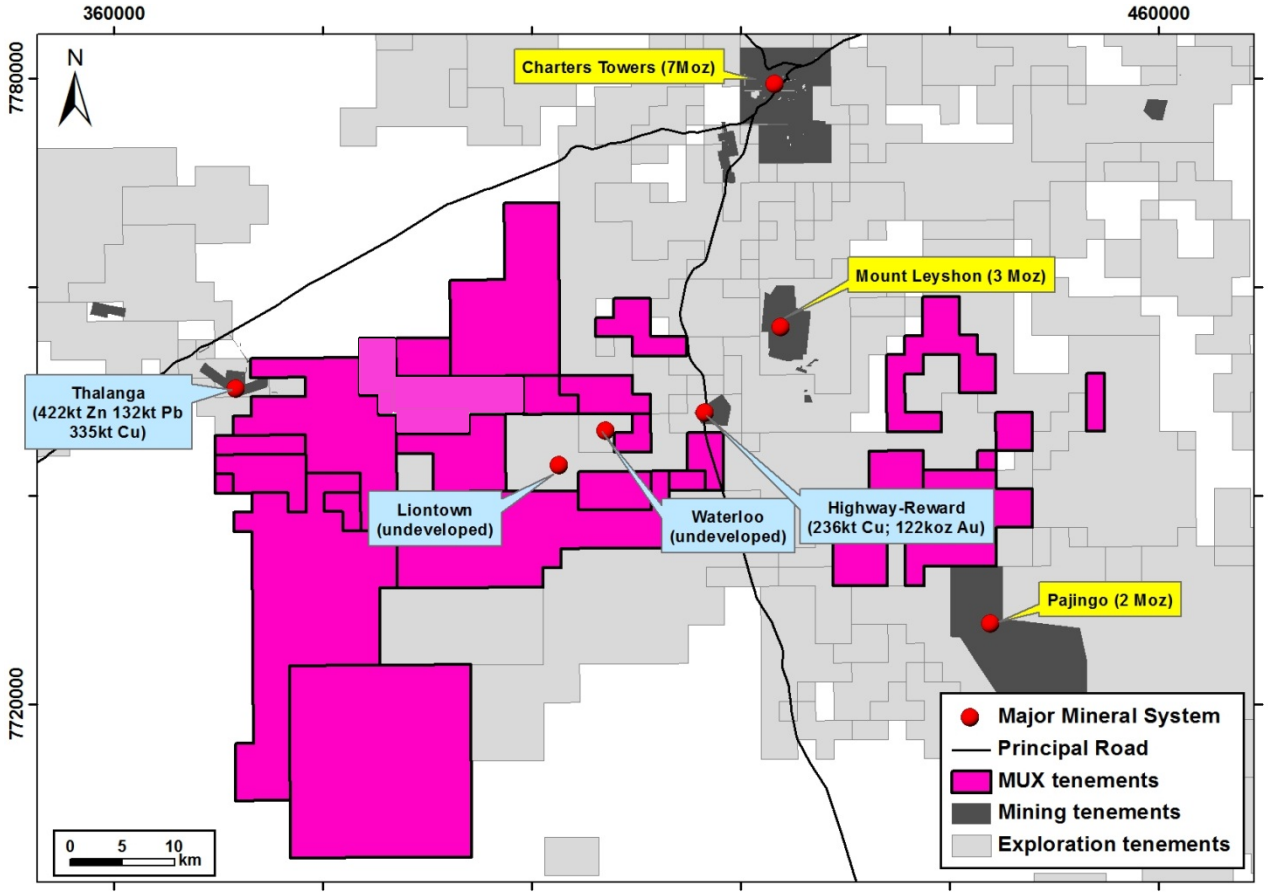

Figure 1: *District Endowment, with major centers of gold production labelled in yellow, and major VMS deposits labelled in blue. The tenement position controlled by MUX is shown in purple.*

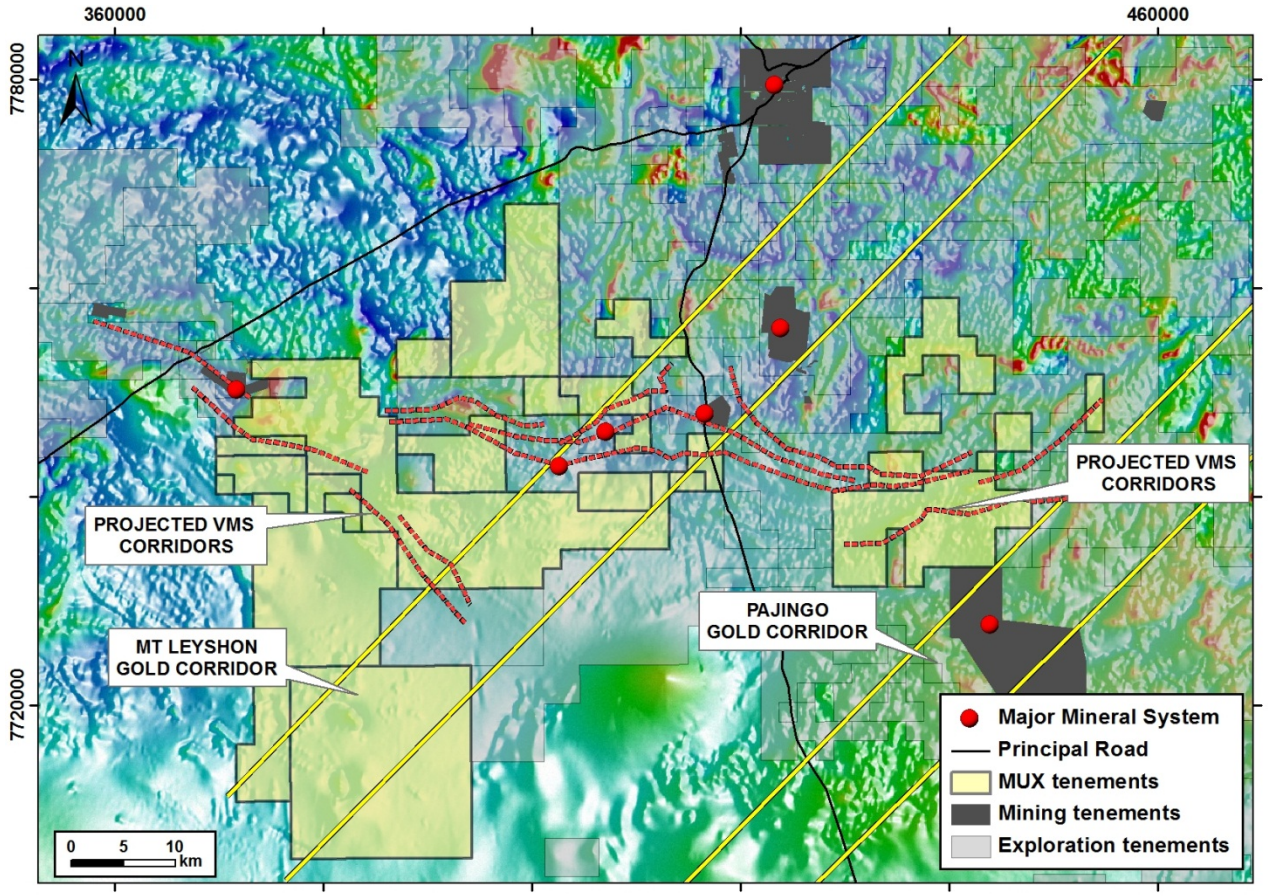

Figure 2: *Metallogenic corridors, with interpreted VMS corridors shown in dashed red, and NE-trending gold corridors shown in yellow outline.*

PRIOR EXPLORATION

Prior exploration has been particularly focused in areas of exposure or sub-crop, with very limited exploration under cover. Historical rock chip sampling has shown the presence of high tenor gold mineralisation associated with veining and younger dyke swarms in the Ravenswood Granodiorite complex. Peak values are locally in excess of 1-2oz/t Au, and include anomalous copper (a signature of the gold event in the area). In areas of subcrop, there appears to be scope to enhance target definition through enhanced geochemical coverage – possibly through trial of a future soil XRF program for pathfinder elements.

Correlatives of the Thalanga VHMS horizon on the new tenements also show metal anomalism. Bedrock intersections from the more advanced prospect areas have returned sulphide tenors of 4.3%Zn, 1.6% Pb, 0.6% Cu. An exploration program utilising modern electromagnetic survey technology would be recommended to further evaluate the potential for a sizeable target along these corridors.

Examples of geochemical data coverage are illustrated below, showing some of the metal anomalism identified in previous exploration. The compilations are based largely on data obtained from the Geological Survey of Queensland's data digital releases over the Charters Towers area. Some further review of open file reporting and validation is recommended.

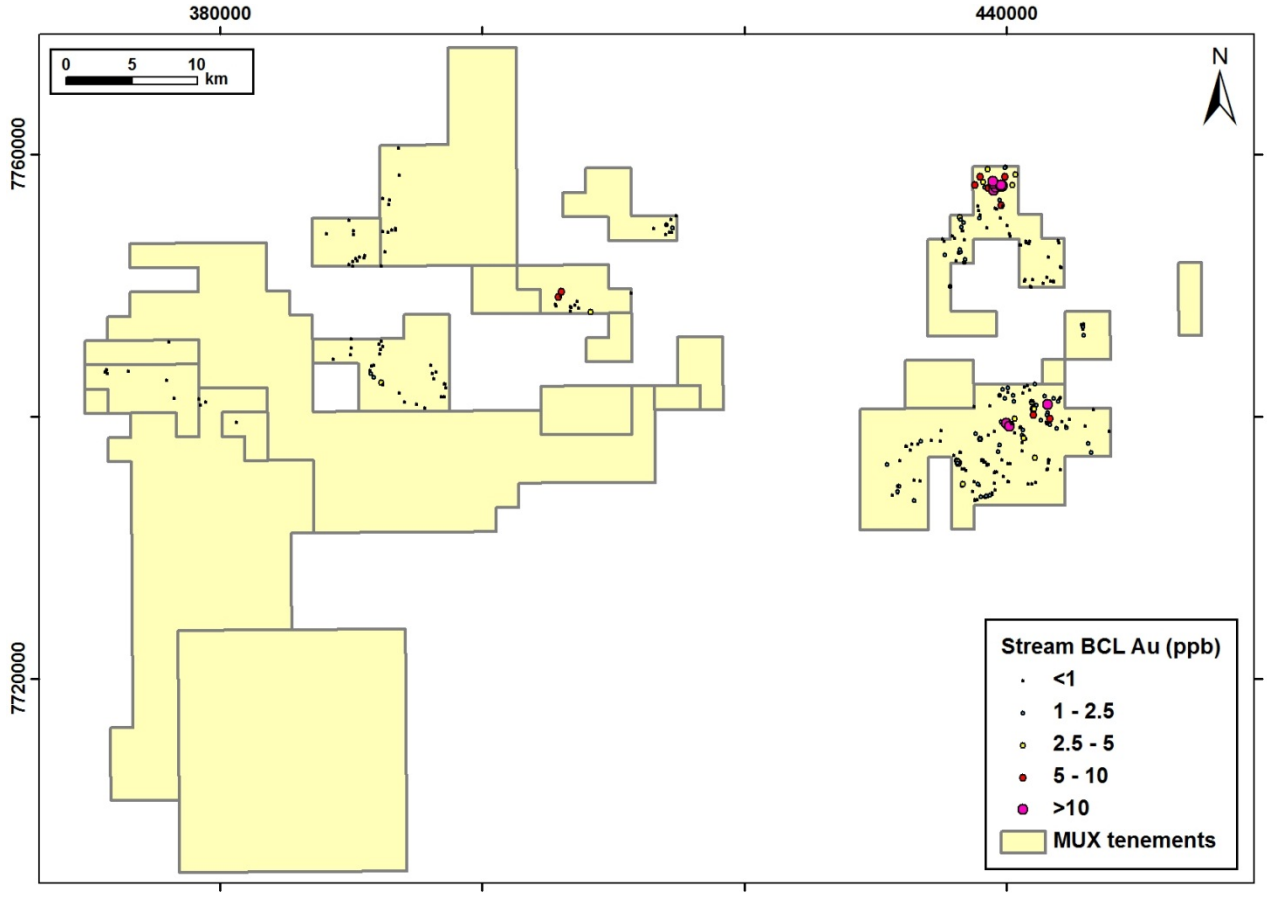

Figure 3: *Stream sample gold data from bulk cyanide leach analyses over MUX tenure.*

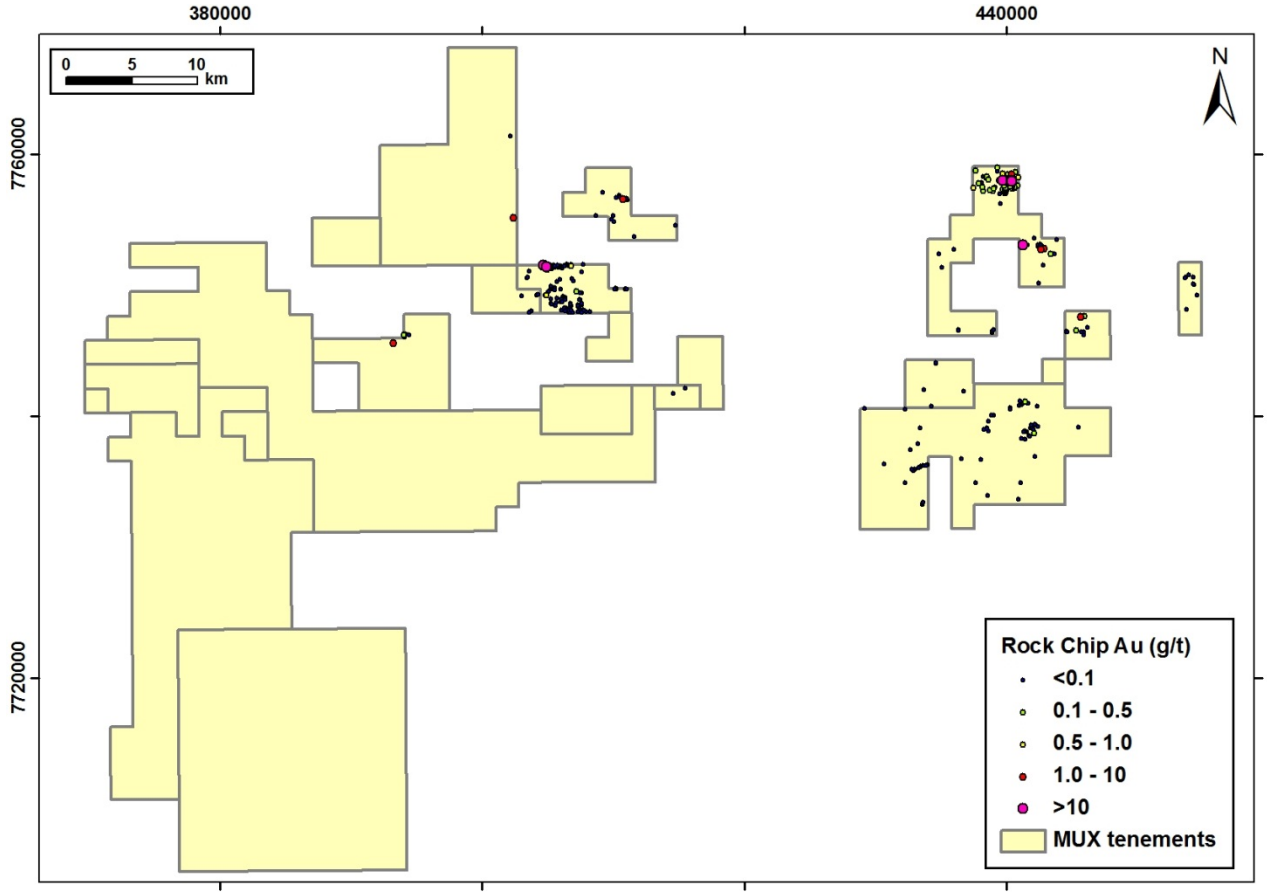

Figure 4: *Rock chip sample coverage over MUX tenure, showing anomalous gold values.*

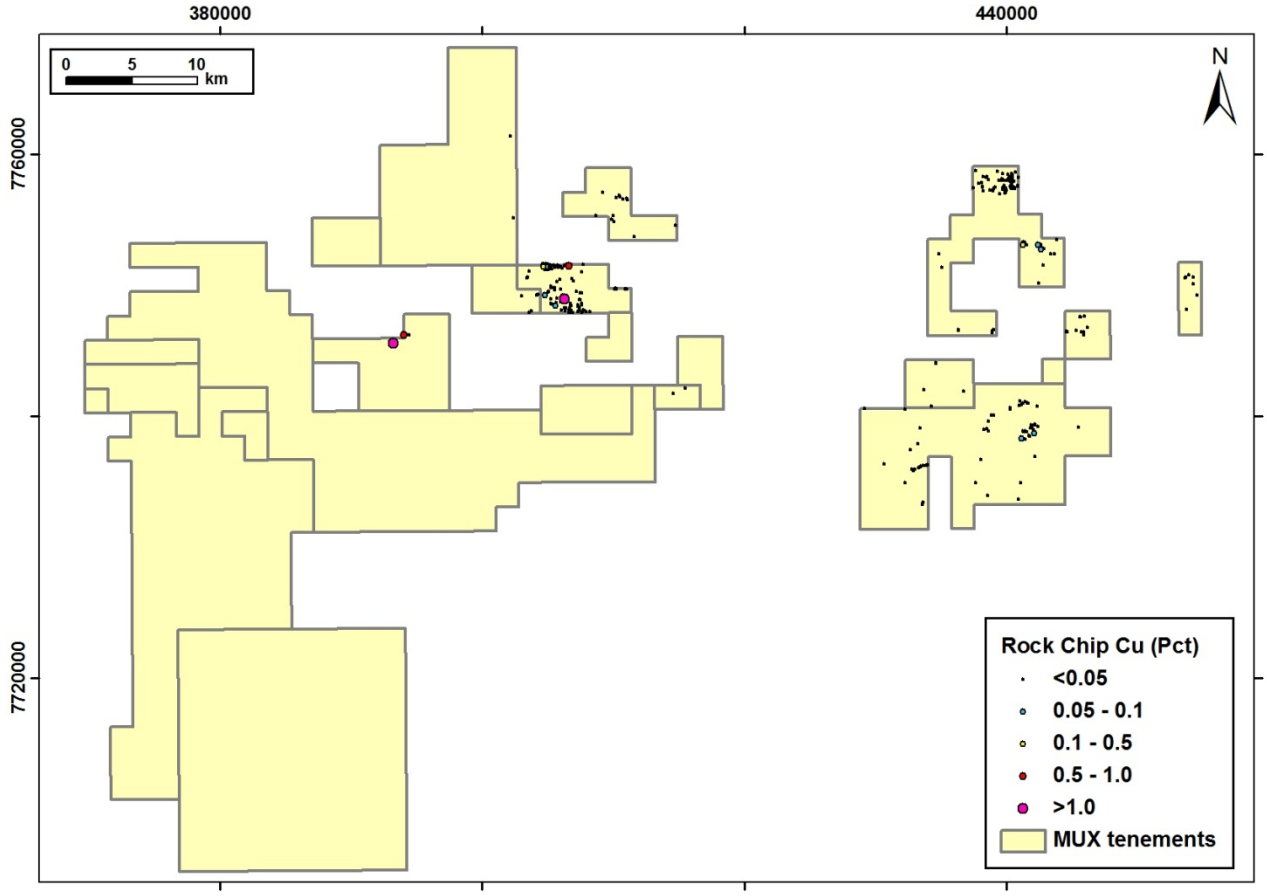

Figure 5: *Rock chip sample coverage over MUX tenure, showing anomalous copper values.*

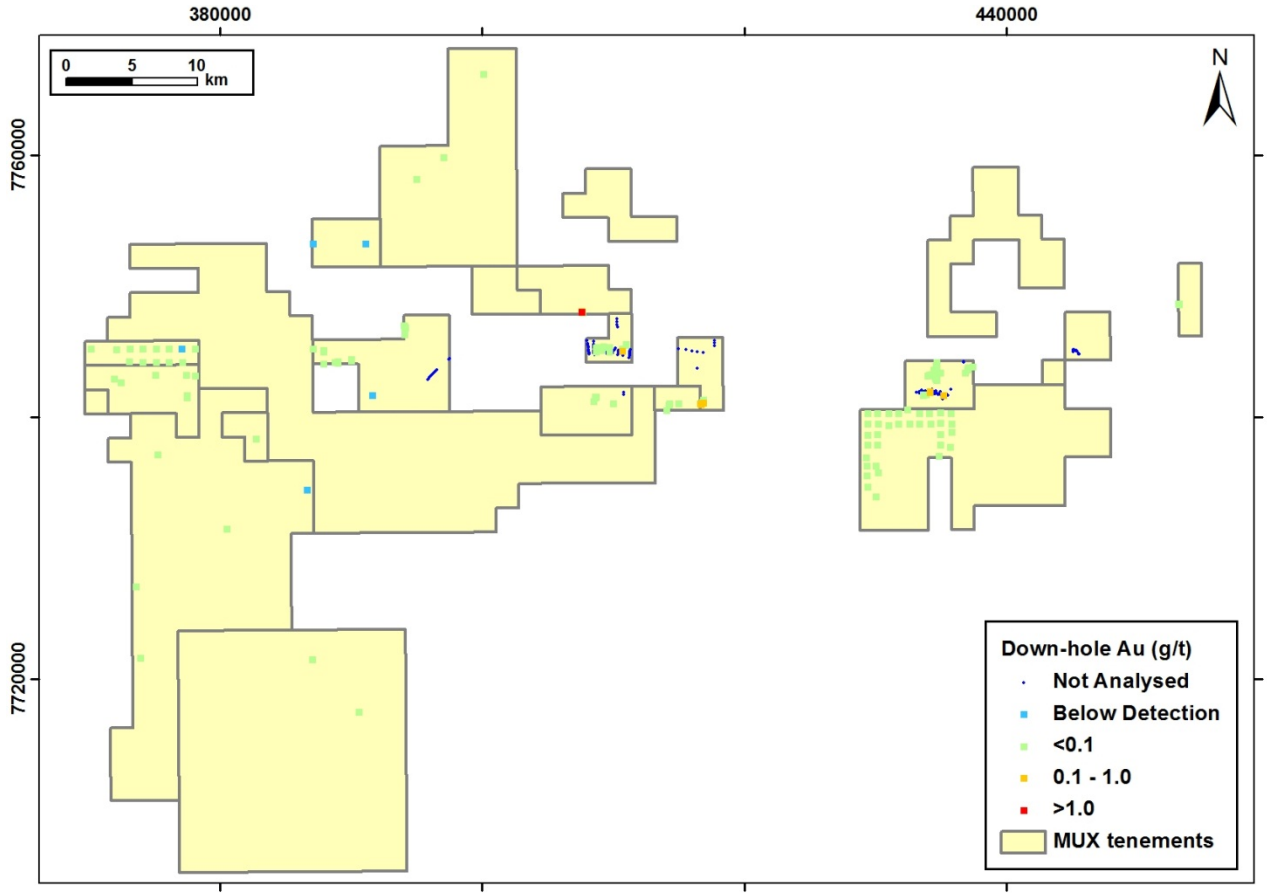

Figure 6: *Down-hole gold assay data, which assay values plotted along the drill hole trace in plan view.*

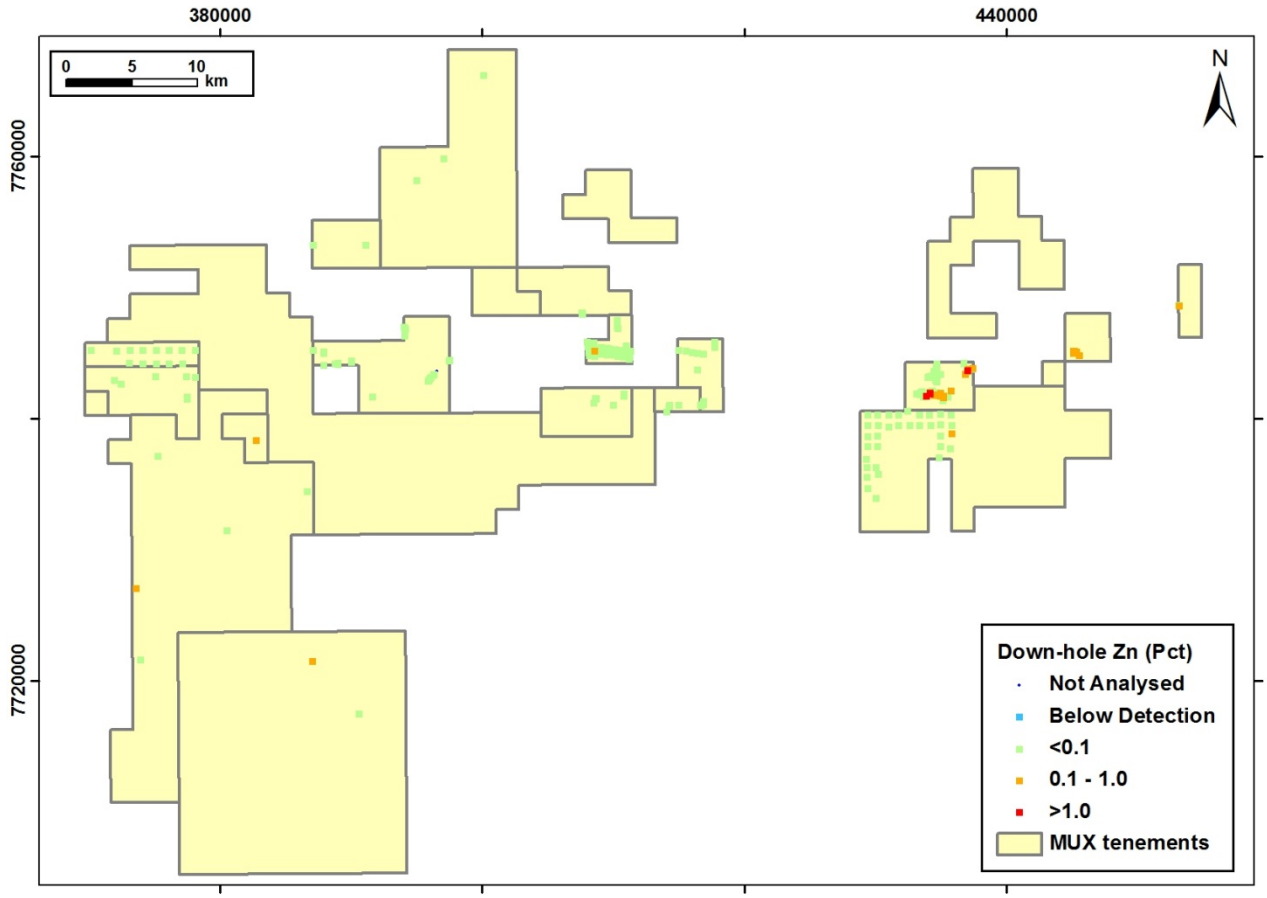

Figure 7: *Down-hole zinc assay data, which assay values plotted along the drill hole trace in plan view.*

UNDER-COVER EXPLORATION TECHNIQUES

Cover sequences present challenges for exploration, particularly in subduing the effectiveness of geochemical techniques. Despite these challenges, studies in the district have provided some benchmarks that show the signature of mineralisation can be dispersed through the regolith some distance from its source, using mineralisation in the Waterloo deposit and Pajingo areas as case studies (AMIRA Study P417: Geochemical Exploration in Regolith Dominated Terrain, North Queensland).

At Pajingo, some sectors of the lode sequence are concealed by Tertiary sediments of the Southern Cross Formation, along with more recent colluvium and alluvium. Within the Southern Cross Formation, gold dispersion was found to extend up to 100–300 m away from known mineralised positions. Studies concluded that gold mobilisation was initially mechanical, with some secondary dispersion during subsequent weathering. Elevated Au at 25–35 ppb may be an indicator of distal mineralisation, whereas anomalies of 35–70 ppb and, more specifically, >70 ppb Au may indicate proximal mineralisation (Robertson, 2003)

At the Waterloo deposit, studies have recognised anomalous levels of Pb and Ba immediately beneath the Tertiary cover of the Campaspe Formation which are interpreted to have resulted from mechanical or chemical dispersion from the mineralised source. Zinc and Cu were also mobilised during weathering form a wide dispersion halo. The sizes of the geochemical haloes at the base of the Campaspe Formation are at least 1 km across for Pb and 600 x 300 m for Zn (Anand et al., 2002).

The case studies on geochemical dispersion through the regolith provide a better framework new for screening targets that can be developed using deeper seeking induced polarisation techniques and electromagentic techniques, which have significantly increased the effectiveness in recent years. Such techniques have not yet received widespread application in the district.

Some further processing and interpretation of the magnetic imagery is recommended to support targeting prior to drilling. A number of discrete magnetic anomalies are present which may reflect the signature of variable magnetisation / demagnetisation associated with hydrothermal processes. Naudy depth to magnetic basement modelling is recommended to confirm the depths of these features and assist in prioritisation of targets.

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Name/Title	Company
Andrea De Cian, Director - Corporate Finance	Grant Thornton Corporate Finance Pty ltd

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0	26/05/2015	M Davies	Draft report
1	27/05/2015	M Davies	Final Report