

# Southern Region Assets

October 2 2014



## **Competent Person's Statement:**

The information in this presentation to which this statement is attached that relates to Mineral Resources is based on information reviewed by Mr Stuart Hutchin, who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Hutchin has sufficient experience in the style of mineralisation and types of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hutchin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information pertaining to the West 45, Orient, Liontown and Waterloo Mineral Resources were extracted from the Kagara Limited Annual Report 2011. This report is available to view at [www.asx.com.au](http://www.asx.com.au). The information for all four Mineral Resources was first disclosed by Kagara Limited under the JORC Code 2004. The estimates were conducted by Kagara.

All Mineral Resource estimates were prepared and first disclosed under the JORC Code 2004. This information has not been update since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Work is currently being undertaken by the Company to bring each of the Mineral Resources into line with the JORC Code 2012.

## **Forward Looking Statement:**

This presentation contains forward looking statements that are subject to risk factors associated with the mining and resources industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and exploration results, gas commercialisation, development progress, operating results, engineering estimates, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals and cost estimates.

- In 2014, Red River has been transformed from a shell (market capitalisation of <A\$1m) to an advanced base metal development company with a market capitalisation of >A\$30m
- Transformation driven by the acquisition of the Southern Region Assets from Kagara's liquidators
- Acquisition would not have been possible without the support of our shareholders, our brokers (Triple C and Fosters) and our legal advisers (Piper Alderman)
- Our objective is to bring the Southern Region Assets back into production to create value for our shareholders
- To meet this challenge, we have been fortunate to appoint one of the most experienced base metal development and management teams in Australia

## **Delivering on strategy**

Creating value for shareholders (3,000% increase in share price since March 2014)

Building a mid-tier mining business focusing on acquiring assets which will provide superior returns for shareholders and give the business long term stability

Targeting cyclical base metals and critical raw materials

# Red River Resources – Corporate Snapshot

## Red River Resources (ASX:RVR)

Shares on Issue <sup>1</sup>	153.3m
Options <sup>2</sup>	12.45m
Current share price <sup>3</sup>	A\$0.22/share
Market cap	A\$33.7m
Cash <sup>4</sup>	A\$0.4m

(1) As at 29 September 2014

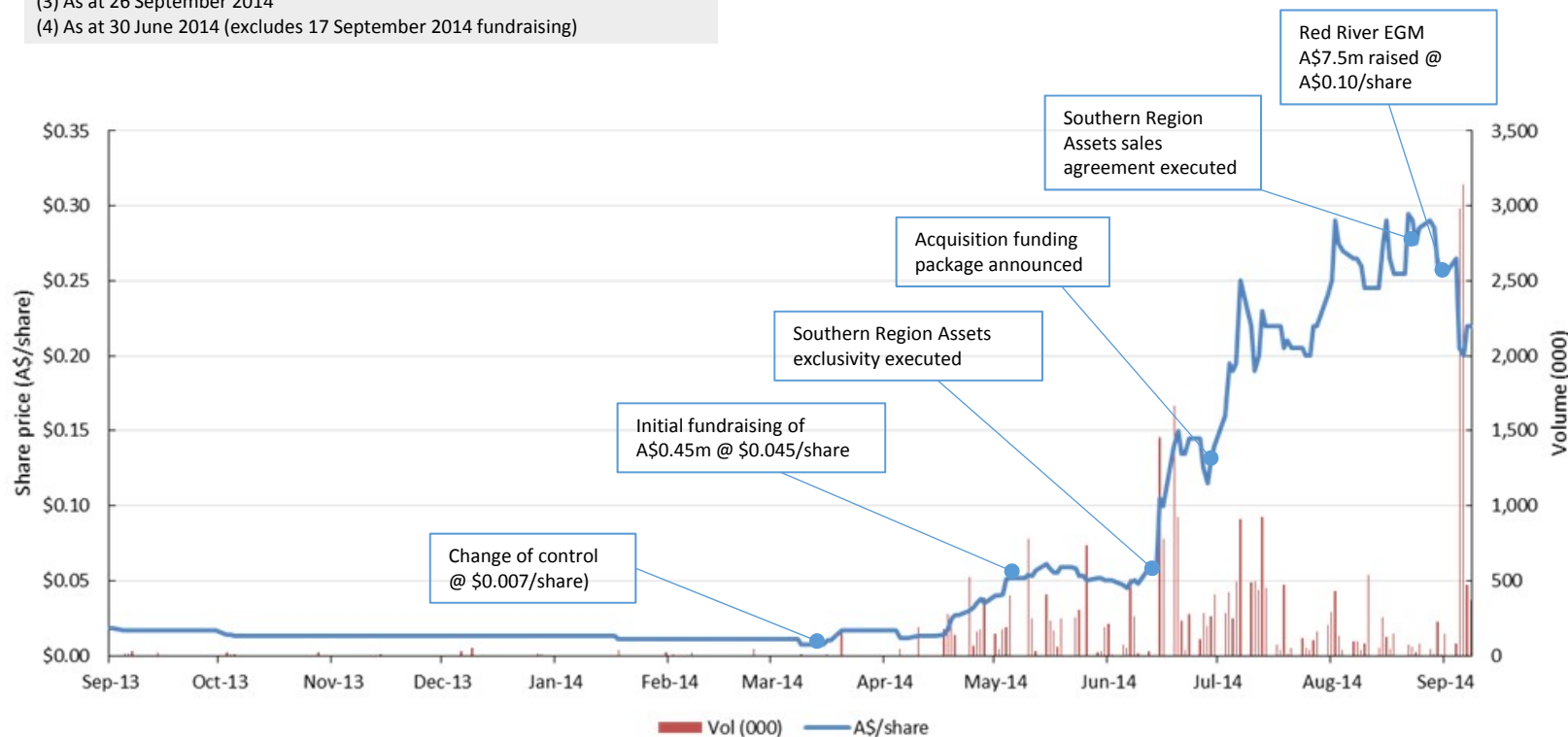
(2) As at 29 September 2014 (excludes 7.5m options outstanding to Triple C)

(3) As at 26 September 2014

(4) As at 30 June 2014 (excludes 17 September 2014 fundraising)

## Major Shareholders

Directors	9.0%
Top 20 including Directors	48.0%



- Recent appointments of Mel Palancian and Karl Spaleck gives Red River one of the most experienced technical teams in Australia
- Seeking to further strengthen Board and senior management team going forward

Board	
<b>Donald Garner</b>	<b>Managing Director</b>
<ul style="list-style-type: none"> <li>• Geologist with over 15 years experience in the mining industry and metals &amp; mining corporate finance</li> </ul>	
<b>Mel Palancian</b>	<b>Chief Operational Officer</b>
<ul style="list-style-type: none"> <li>• Engineer with over 20 years experience in the mining industry</li> <li>• Prior to joining Red River was the DGM at Newcrest's Gosowong operations (Indonesia)</li> <li>• He previously held a number of senior management positions at MMG (GM Technical Services), OZ Minerals (Manager Dugald River Development) and Zinifex (Principal Adviser Mining)</li> </ul>	
<b>Cameron Bodley</b>	<b>Company Secretary &amp; Non Executive Director</b>
<ul style="list-style-type: none"> <li>• Chartered accountant with over 15 years experience in professional practice and industry</li> </ul>	
<b>Paul Hart</b>	<b>Non Executive Director</b>
<ul style="list-style-type: none"> <li>• Investment professional with background in investor relations and capital raising with over 20 years experience in the Australian stock market</li> </ul>	
Senior Management	
<b>Karl Spaleck</b>	<b>GM Operations</b>
<ul style="list-style-type: none"> <li>• Metallurgist with over 20 years experience in the mining &amp; metallurgy industry</li> <li>• Prior to joining Red River was the General Manager for 2 ½ years at Newcrest's Lihir operations (PNG)</li> <li>• He previously spent 6 years at MMG's Century zinc mine (global #3) in Queensland, where he held a range of senior positions including Concentrate Manager Operations, Deputy GM and culminating as GM for 2 years</li> </ul>	

- Execution of binding exclusivity agreement to acquire the Southern Region Assets from Kagara Limited (in liquidation) (ASX:KZL) and Kagara Copper Pty Ltd (in liquidation) announced on 3 July 2014. Sales agreement executed on 12 September 2014
- Total consideration payable of A\$6.5m; consisting of:
  - Cash payment of A\$5.0m on sale completion
  - Deferred cash payment of A\$1.5m payable 3 months after commencement of commercial production
- 1.5% NSR royalty on production from Southern Region Assets (excluding production subject to an existing third party royalty agreement)
- Red River EGM held on 17 September 2014 – transaction and associated A\$7.5m fundraising approved. Completion likely to occur at end of October 2014 – Red River will take control of sites
- Legal transfer of tenements to Red River likely to occur end 2014 / start 2015 – subject to transaction documents being stamped by Queensland Office of State Revenue

## Southern Region Assets

<b>Thalanga Processing Plant</b>	<ul style="list-style-type: none"> <li>• Located 60km SW of Charters Towers in Central Queensland</li> <li>• 600 ktpa polymetallic (Cu, Pb &amp; Zn) processing facility</li> <li>• Currently on active care &amp; maintenance</li> <li>• Tailings storage facility with sufficient capacity for 5yrs + operation</li> <li>• Site offices, workshops, change facilities, grid power &amp; sealed road access</li> </ul>
<b>JORC 2004 Resource<sup>(1)</sup></b>	<ul style="list-style-type: none"> <li>• Total JORC Resource of 3.8Mt @ 0.9% Cu, 2.4% Pb, 8.2% Zn, 0.6g/t Au &amp; 41g/t Ag</li> </ul>
<b>Exploration</b>	<ul style="list-style-type: none"> <li>• Currently 190km<sup>2</sup> of ground (exploration permits and mining leases)</li> </ul>
<b>Infrastructure Advantage</b>	<ul style="list-style-type: none"> <li>• Residential workforce (sourced from Charters Towers)</li> <li>• 200km by sealed road to concentrate export port facility (Townsville) and to zinc smelter (Sun Metals – Townsville)</li> </ul>

(1) Refer to Notes at end of presentation



Source: Red River Resources



Source: Red River Resources

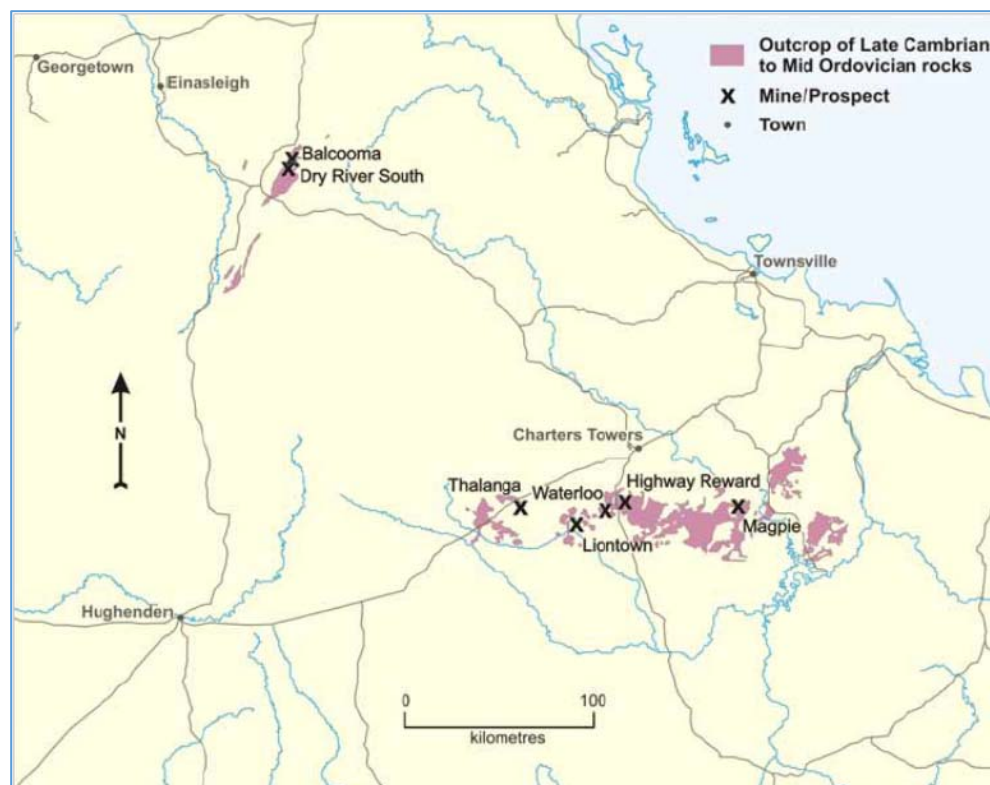
- Outcropping gossan above Central Thalanga discovered by Pennaroya Australia Pty Ltd in 1975
- Thalanga open pit mining started by Pancontinental Mining and Thalanga mill commissioned
- Underground production started in 1991 and continued until 1998
- Thalanga Mine closed in 1998. Mill converted from polymetallic Cu/Pb/Zn float to Cu for Highway Reward copper sulphide ore
- Highway – Reward open pit and underground Cu ore treated from 1999 to 2005
- Kagara purchased Thalanga in 2006 and processed Balcooma Cu ore until 2009
- In 2010, the mill was refurbished and converted back to polymetallic flotation for treatment of Vomacka and West 45
- In 2012, Vomacka open pit was completed and mill was placed on care & maintenance

Period	Source	Throughput
1989-1998	Thalanga	4.7Mt milled @ 1.9% Cu, 2.6% Pb and 8.3% Zn
1999-2005	Highway Reward	3.8Mt milled @ 6.2% Cu and 1g/t Au
2006-2009	Balcooma	1.5Mt milled @ 3.3% Cu
2010-2012	Vomacka	640Kt milled @ 1.6% Cu, 1.6% Pb and 5% Zn

Source: Kagara Ltd (in liquidation)



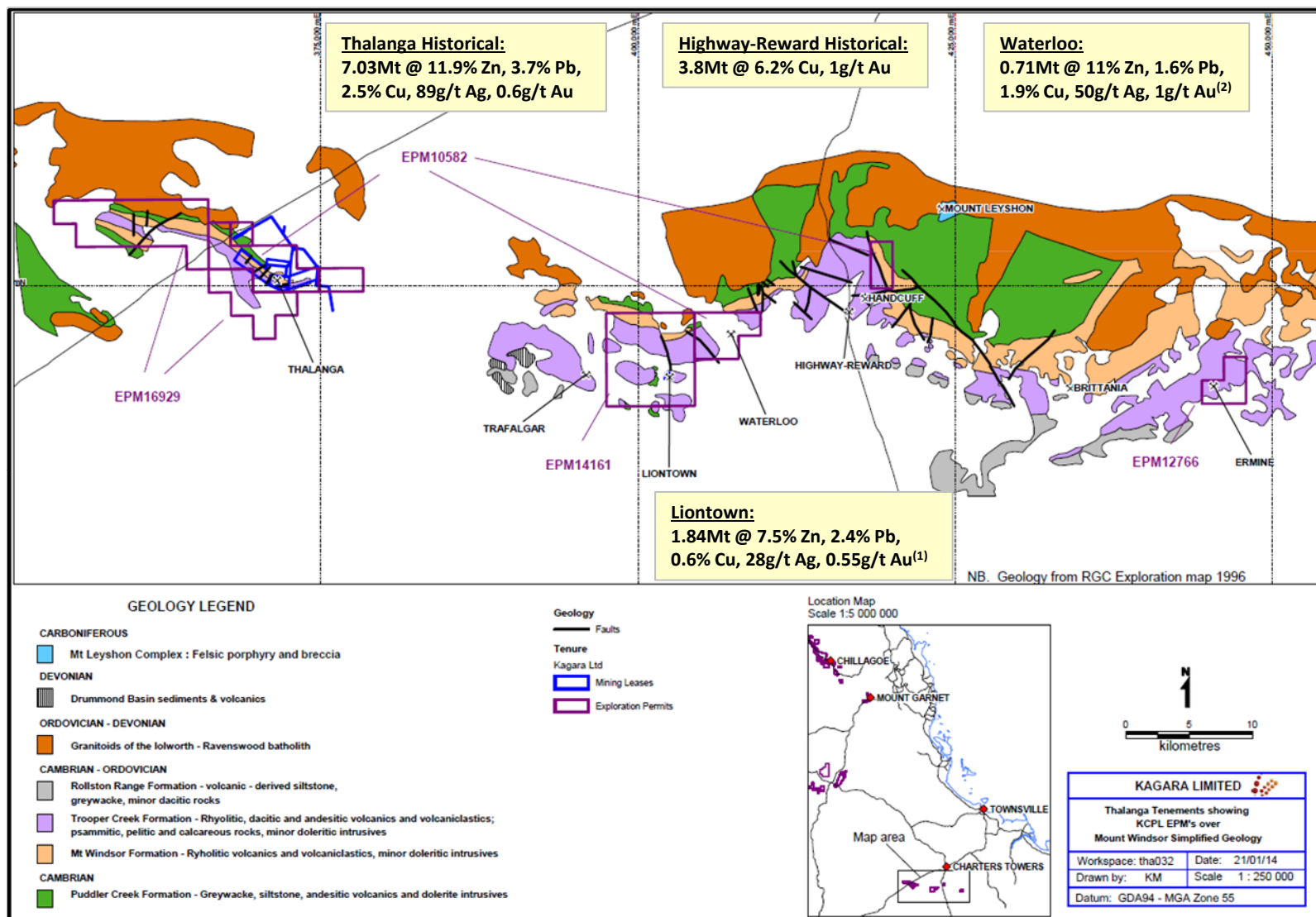
- Mt Windsor Subprovince comprises of a Cambrian to early Ordovician volcano-sedimentary terrane forming an east-west belt extending for 165km in an east west direction south of Charters Towers
- Multiple VHMS (volcanic hosted massive sulphide) deposits have been discovered in the Subprovince, with the most recent discovery being Waterloo in 1987



Source: Hutton & Withnall, *Depositional Systems, Crustal Structure and Mineralisation in the Thalanga Province, North Queensland*, Geological Survey of Queensland

- Historical exploration (surface geochemistry, mapping and airborne EM) has effectively screened the Mt Windsor Belt for outcropping massive sulphide deposits
- Future discoveries of blind or concealed deposits in this highly mineralised belt are likely to involve:
  - Extensive bedrock drilling under cover
  - Geological or structural targeting of extensions to previously recognised mineralised zones
  - Deep penetration IP /downhole EM to 'see through' the deep oxidised, conductive overburden

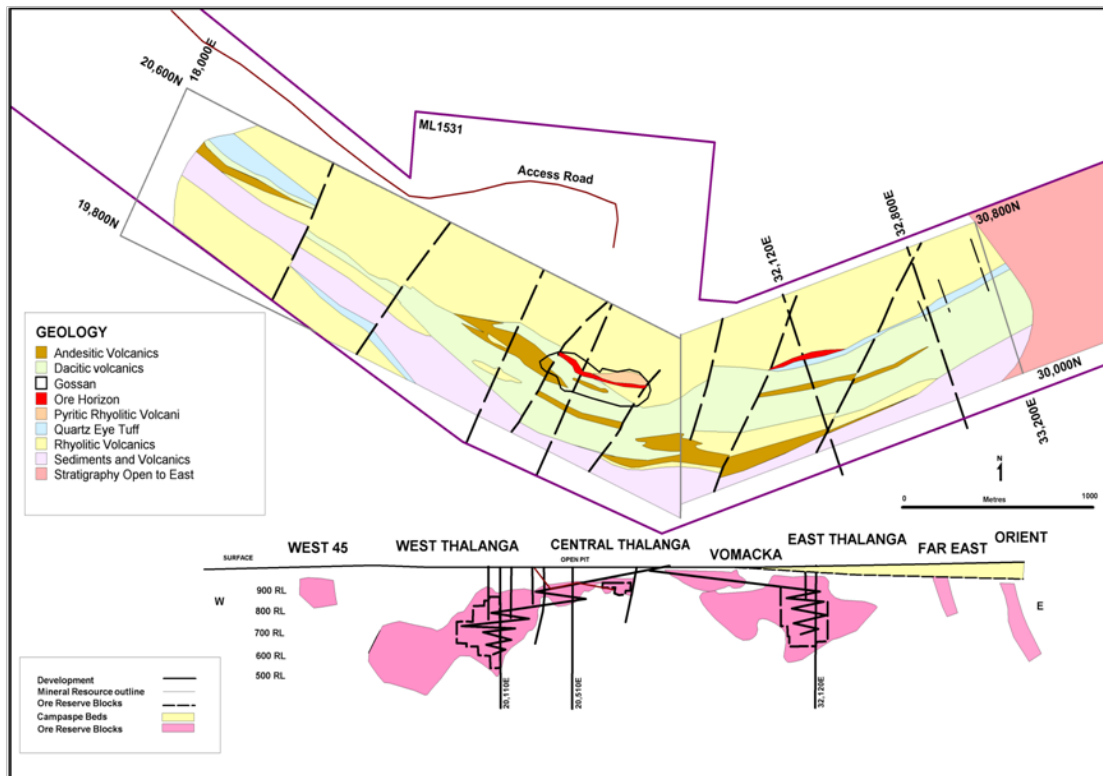




(1) Refer to Liontown Resources Limited ASX release dated 23 April 2008

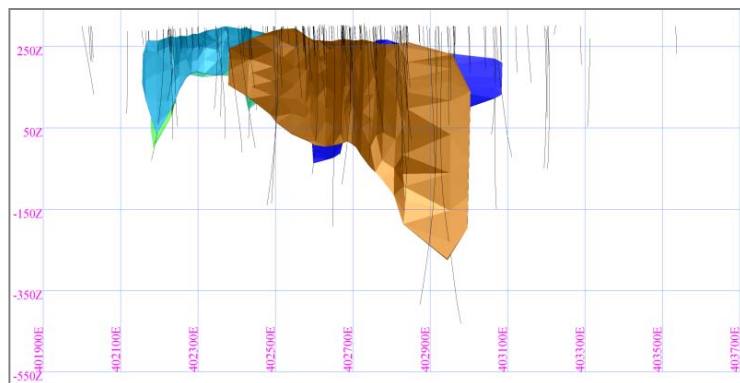
(2) Refer to Kagara Ltd Annual Report 2011 released to ASX on 21 Sept 2011

- JORC (2004) Resources defined at West 45 and Orient
  - West 45: JORC (2004) resource of 591Kt @ 8.3% Zn, 3.5% Pb, 0.6% Cu, 0.3g/t Au and 69g/t Ag<sup>(1)</sup>
  - Orient: JORC (2004) resource of 539Kt @ 8.0% Zn, 1.8% Pb, 0.9% Cu, 0.2g/t Au and 44g/t Ag<sup>(1)</sup>
- Unclassified resource present in Thalanga Remnants (remaining mineralisation from closure) – targeting West Thalanga
- Thalanga System potential at strike and depth – high priority target



(1) Refer to Kagara Ltd Annual Report 2011 released to ASX on 21 Sept 2011

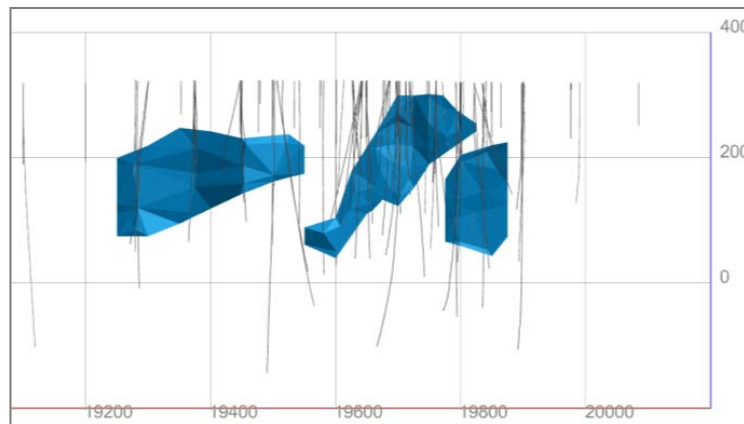
Liontown block model



Source: Kagara Ltd (in Liquidation)

- JORC (2004) Resource of 1.85Mt @ 7.5% Zn, 2.4% Pb, 0.6% Cu, 0.5 g/t Au and 28 g/t Ag<sup>(1)</sup>
- Located approx. 30km east of Thalanga (direct line) and about 100km by road
- Acquired by Kagara from Liontown Resources (ASX:LTR) for A\$4.5m in Kagara shares and a deferred cash payment of A\$2.25m in December 2009
- Potential for initial open pit followed by UG development

Waterloo block model



Source: Kagara Ltd (in Liquidation)

- JORC (2004) Resource of 707Kt @ 11% Zn, 1.6% Pb, 1.9% Cu, 1 g/t Au and 50 g/t Ag<sup>(2)</sup>
- Blind deposit under tertiary cover. Mineralisation open down plunge and along strike
- Mine Lease application surveyed and data collated - not submitted
- Located approx. 35km east of Thalanga (direct line) and about 95km by road

(1) Refer to Liontown Resources Limited ASX release dated 23 April 2008

(2) Refer to Kagara Ltd Annual Report 2011 released to ASX on 21 Sept 2011

- Red River has set a target of restarting production at Thalanga by end CY2015
- West 45 is logical restart – partially developed by Kagara – will represent initial source of feed to Thalanga processing plant
- Process of recruiting technical team has commenced – have recently appointed COO (Mel Palancian) and GM Operations (Karl Spaleck). Team will be highly incentivised to achieve restart target.
- Option study has commenced to decide which project will be developed post West 45.

<b>Restart Study</b>	Complete fully costed restart plan - West 45 & Thalanga Plant
<b>JORC Conversion</b>	Convert historical JORC 2004 resources to JORC 2012
<b>Option Study</b>	Review current projects and define development schedule

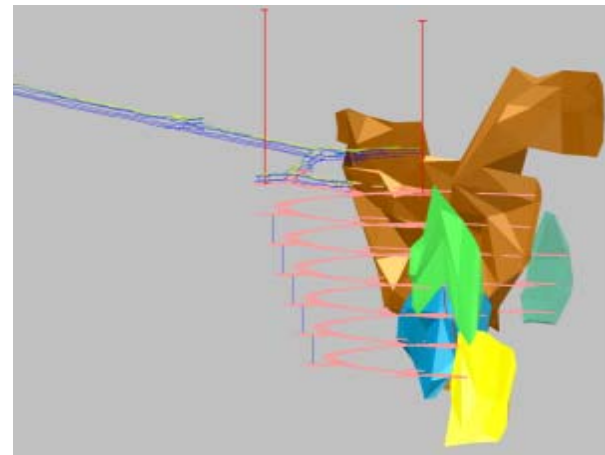
- Discovered by RGC in 1996 - located approximately 2km west of the Thalanga mill
- Kagara completed a resource drill out in February 2011 – drilled out on 20m sections
- Box cut commenced in August 2011 – Kagara developed decline and first level into deposit
- Placed on care & maintenance in March 2012
- Rehabilitation - decline is partially flooded and services (power, ventilation) were stripped out
- Initial production source for Red River – target restart of mining towards end of 2015

West 45 portal



Source: Red River Resources

West 45 development and block model

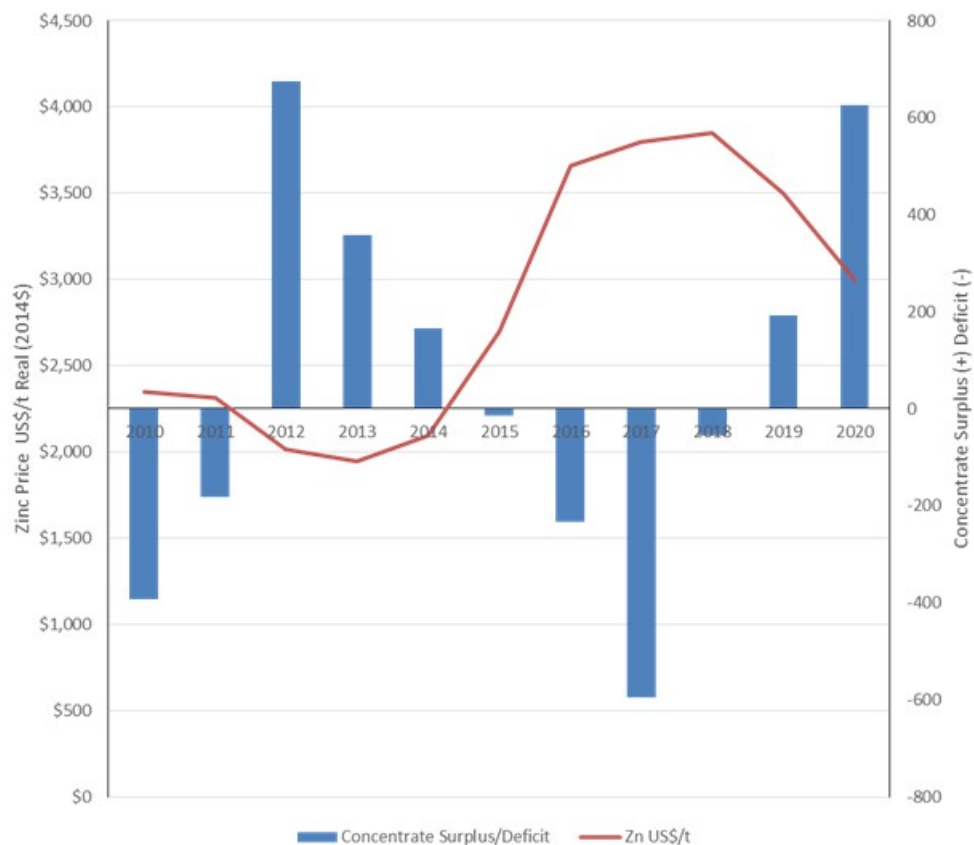


Source: Kagara Ltd (in Liquidation)

- Process of recruiting exploration and development (E&D) team is underway
- Team will be incentivised to achieve goal - 'find more ore'
- Option study has commenced to decide which project follows West 45. Initial focus will be on Orient and Thalanga Remnants
- Short term objective is to ensure that Thalanga Project has 3-5 years of production life ahead of the operation
- Will be sourced from a combination of the following:

<b>Resource conversion</b>	<ul style="list-style-type: none"><li>• Conversion of known resources to reserves at West 45/Orient/Liontown and Waterloo</li><li>• Advance through to production</li></ul>
<b>Thalanga Remnants</b>	<ul style="list-style-type: none"><li>• Design program to convert unclassified resource to JORC 2012</li><li>• Advance through to production</li></ul>
<b>Mine site exploration</b>	<ul style="list-style-type: none"><li>• All mineralised systems (Thalanga/Liontown and Waterloo) are open</li><li>• Review exploration database to confirm known mineralisation and existing anomalies</li><li>• Utilise geophysics (IP/downhole EM) to identify signature of known mineralisation</li><li>• Seek to identify conductors along strike / at depth</li><li>• Test conductors</li></ul>





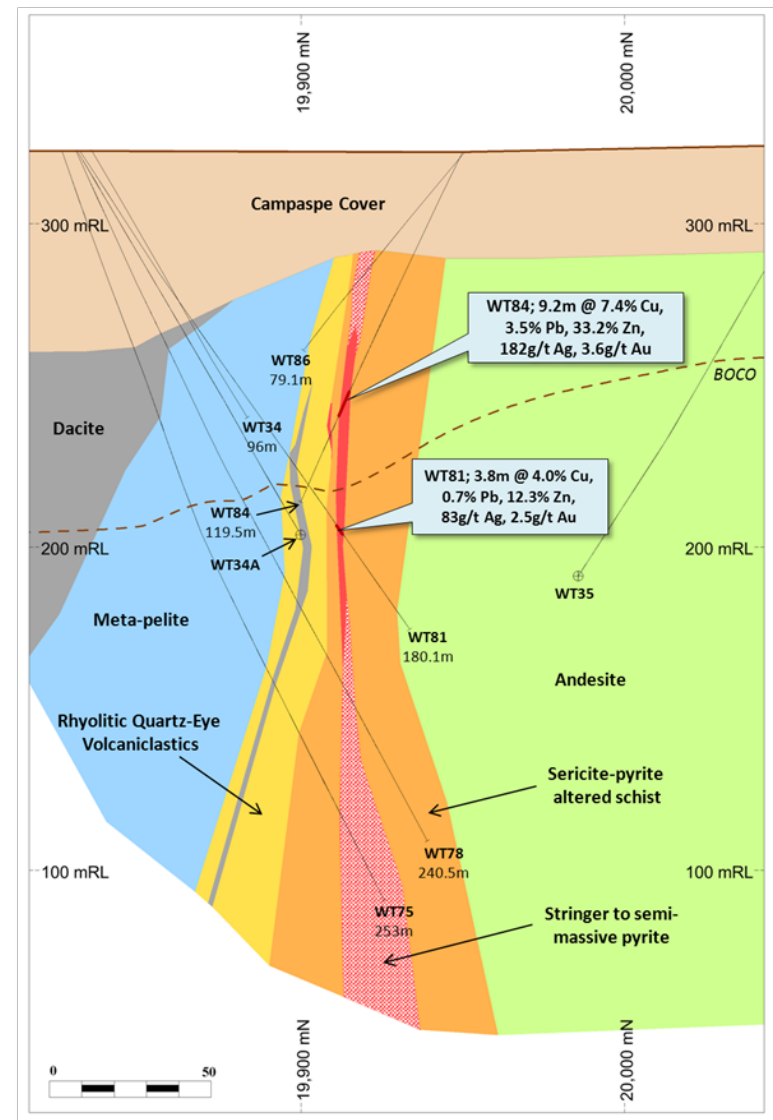
Source: Nyrstar, Wood Mackenzie

- Number of analysts – including CRU and Wood Mackenzie, are projecting a period of market tightness from 2016 resulting in substantially higher zinc prices
- Higher prices driven by market moving to a deficit in 2016
- Cycle predicted to last 3-4 years - window of opportunity for zinc producers to benefit from higher prices
- By targeting a restart of production at end CY2015 - Red River is well placed to take advantage of projected price increase

- Regional exploration activities will also be restarted with the initial focus on ground held by Red River
- Stage One: Explore the historical databases.
  - Re-evaluation of historical work – confirm existing targets and generate new targets
  - Multiple attractive historical targets exist – have not yet been tested
- Stage Two: Geophysical Exploration
  - Geophysical exploration – deep penetrating IP/EM – seek to define known mineralised systems at depth and target new (blind) mineralised systems under cover
  - Survey known mineralisation to confirm response
- Stage Three: Drill Targets
  - “IQ gets you there, but NQ finds it”<sup>(1)</sup>
- Potential also exists to increase Red River’s landholding in the Mt Windsor Subprovince (by application and/or JV/acquisition of third party holdings)
- Objective to acquire additional targets/known deposits that can form an additional feed source for Thalanga
- Thalanga is the only polymetallic processing facility in the Mt Windsor Subprovince – significant strategic value

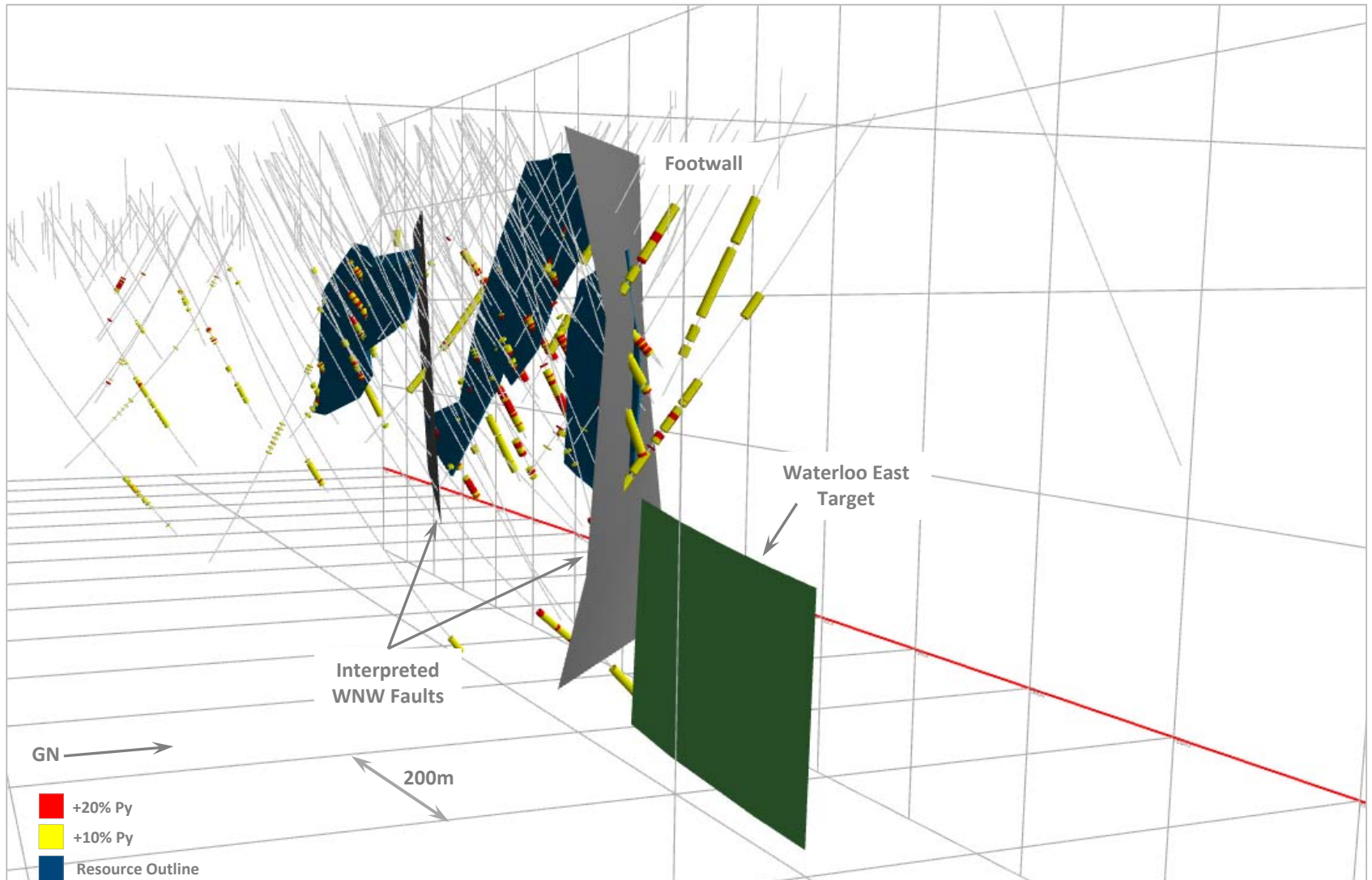
*(1) S Muessig “The Ore Finders” SEG Newsletter No 97 April 2014*

- Mineralisation similar in style to Thalanga
- Hosted entirely within Trooper Creek Formation well above the interpreted Thalanga horizon
- Zinc-rich massive sulphide developed on or near to the contact between footwall pyrite sericite quartz schist (altered and deformed rhyolite) and coarse rhyolitic volcaniclastics, including quartz eye volcaniclastics similar to those developed at Thalanga
- Interpreted late faulting appears to have disrupted massive sulphide lenses



Source: Kagara Ltd (in Liquidation)

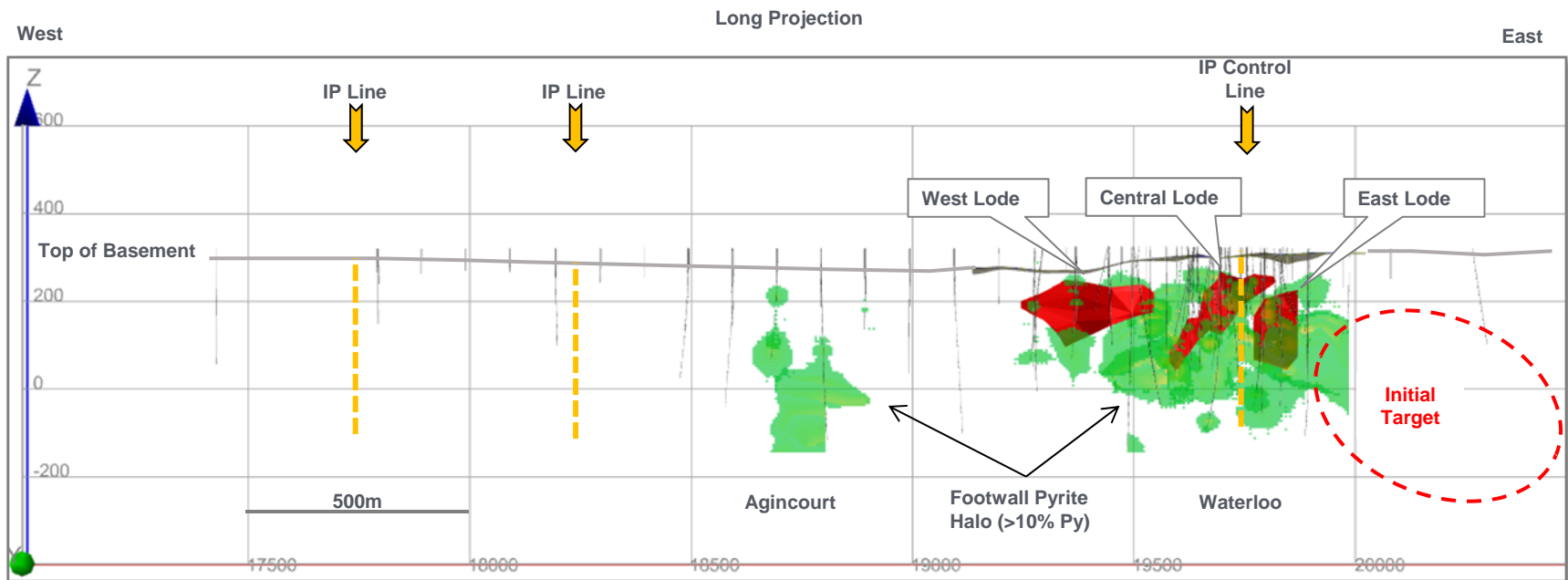
# Waterloo East Target



Source: Kagara Ltd (in Liquidation)

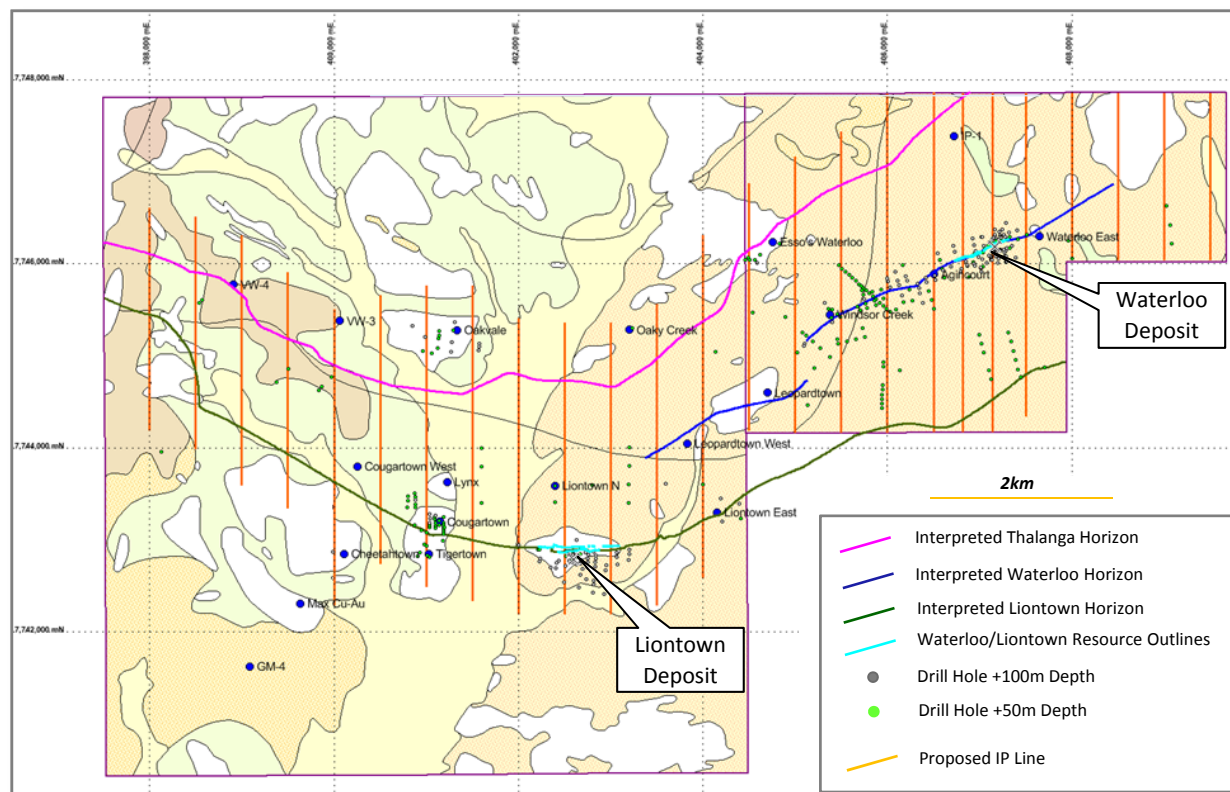
# Waterloo: Proposed IP Survey

- Located approx. 35km east of Thalanga (direct line) and about 100km by road
- Review of the Waterloo deposit conducted, indicates the system remains open to east and possibly down dip
- Recommendation to drill test Waterloo East target and conduct IP survey



Source: Kagara Ltd (in Liquidation)

- Majority of area under Tertiary cover
- Covered area is significantly under-tested and remains highly prospective
- Very limited drilling >50m deep away from Waterloo and Liontown
- Red River confident new geophysical surveying is capable of seeing through conductive cover
- Regional IP geophysical survey planned (orange lines) over prospective Trooper Creek Formation aimed at defining new drill targets



Source: Kagara Ltd (in Liquidation)



- Red River has executed the sale agreement and raised the funds required to acquire the Southern Asset package
- Announced the recruitment of a highly experienced project development and operations team – unrivalled depth of experience
- Commencing Thalanga Restart Study – likely to complete end CY2014/early CY2015
- Target of restarting production by end CY2015 – would be largest pure play ASX listed zinc producer
- Ability to quickly restart production allows Red River to be producing into the forecast zinc cycle and take full advantage of projected peak cycle length of 3-4 years (2016-2019)
- Southern Assets have competitive operating cost inputs (residential workforce, grid power, 200km to active concentrate export port and zinc smelter) and attractive capital costs (no need to construct and permit a processing plant)
- Challenge is not to restart production – West 45 is developed with decline and first level in resource – but to work out which project follows West 45
- Option study commencing to review projects (Orient, Thalanga Remnants, Liontown and Waterloo) to develop an ordered project pipeline
- Exploration team being recruited with clear goal – ‘find more ore’ – objective is to ensure Thalanga has 3-5 years of defined ore in operational plan.

**Red River Resources Limited  
Level 6  
350 Collins Street  
Melbourne  
VIC  
3000**

**Donald Garner  
Managing Director  
[dgarner@redriverresources.com.au](mailto:dgarner@redriverresources.com.au)  
M: +61 438 338 496**

**Paul Hart  
Non-Executive Director  
[phart@redriverresources.com.au](mailto:phart@redriverresources.com.au)  
M: +61 421 051 474**