

## JUNE QUARTER EXPLORATION AND ACTIVITIES REPORT

### Drill Programs and Regional Prospecting Continue Progress at Fifield NSW

Rimfire Pacific Mining NL (ASX: RIM) ("Rimfire" or "The Company") is pleased to provide a summary of activities for the June 2017 quarter at Fifield NSW conducted by the earn-in partners New Gold Inc. (TSX/NYSE: NGD) and Rimfire.

#### **Highlights – Field Program Initiatives at Fifield NSW (refer Figures 1 to 4)**

- ❑ **The first phase aircore/auger drill program was completed with a total of 288 holes drilled over the central third of the Fifield project tenement area**
  - Gold assays were received for soil and bedrock samples. The top 12.5% of assays ranged from 7 to 80 ppb gold, with highest values occurring along contacts of newly identified intrusives and interpreted structural trends.
  - Laterite geology was intersected 5km North of Sorpresa. Mapping, geophysics and the aircore/auger drilling, implies that the encountered geology could represent an extension of the Tout Intrusive complex which hosts the neighbouring Syerston laterite deposit (CleanTeq, ASX: CLQ).
  - A second campaign of regional aircore/auger drilling is under construction, given the successful outcomes of the first phase just completed.
  - Infill sampling and drilling will occur on new anomalous areas identified for tighter target definition
- ❑ **First pass drilling started 26<sup>th</sup> July on five initial target areas <sup>1</sup> that were prequalified in the period**
  - Mineralisation concepts being examined include potential epithermal and porphyry style systems
  - **3,000m of Reverse Circulation (RC) drilling** was planned, with targeted depths of 60m to 275m
  - **1,000m of Diamond Core (DD) drilling** was designed, with targeted depths ranging from 400m to 600m as diamond tails from initial RC pre-collars on three of the five proposed targets
- ❑ **Results were reported in April from infill Reverse Circulation (RC) drilling (total 1818m) at Sorpresa Gold and Silver resource.** Best individual holes were:
  - Roadside hole Fi0633: **16m @ 1.92g/t Au & 251 g/t Ag from 58m and including 1m @ 2240 g/t Ag**
  - Boundary Gate hole Fi0626: **26m @ 1.89g/t Au from 6m including 1m @ 24.9g/t Au from 12m**
  - An additional metallurgical study is planned for the 3<sup>rd</sup> quarter on the Sorpresa resource
- ❑ **Intense regional surface mapping, prospecting assessment and concept generation continued**
  - A new program commenced generating regolith and soil reliability maps aiding structure and geology interpretation, including areas scheduled for the current drilling program
  - More than 12km<sup>2</sup> was completed including areas west of Fortuna prospect and east of the Eclipse Trend

#### **CEO and Managing Director, John Kaminsky reviewed the activities in the Quarter:**



"This has been an excellent quarter for the Company. The historic data review combined with the expanded new geological and geochemistry knowledge gained in the latest work programs, have provided initial five drill target areas across the district for first pass drill testing.

"This is a very exciting time for the Company and shareholders. The deeper drilling programs are underway at Fifield and drilling will continue throughout August.

"We have definitely gained a greater understanding of the promising nature of the Fifield district to yield world class discoveries, through the work programs in the first half of 2017. Whilst the fuller context for the regional results is still considered work in progress, we have again achieved solid progress in this quarter.

<sup>1</sup> This proforma program is subject to review and modification at the discretion of the Fifield project partners (New Gold Inc and Rimfire), and may change according to land access, logistic constraints, permitting or technical variations.

“There is an impressive list of field initiatives that have been successfully deployed in the quarter, using the combined efforts of both New Gold Inc. and Rimfire, and these include:

- ✓ Regional aircore/auger drilling phase one campaign completed
- ✓ Geological understanding of the broader tenement expanded
- ✓ Extensive prospecting, sampling, mapping on multiple areas and is ongoing (areas include Tout East, Fortuna, Eclipse Trend and others)
- ✓ First pass RC and Diamond Core drilling planned and now under execution
- ✓ Further progress on the Sorpresa resource with infill drilling results



“It was also interesting to note the results of copper and gold intersections by [Emerson Resources \(Hyperlink\)](#), to the east of Rimfire’s tenements. There is definitely an increase in activity levels by a range of companies both looking to develop deposits and exploring for new discoveries in this promising district within the East Lachlan Fold Belt.”

#### Aircore and Auger Drilling Programs and Prospecting – a combined approach

“The new data generated by New Gold’s aircore and auger drilling program has significantly advanced our understanding of the bedrock geology and related mineral potential north and east of the Sorpresa Corridor (Figures 1 & 2).

“New Gold’s approach has been to digest the bigger picture of the underlying geologic framework and controls to mineralization in the Fifield district and then look to test the priority targets that could meet the scale and commercial objectives they have set.

“Rimfire has used its prospecting skills and expertise developing additional discovery opportunities and concepts. This work provides a strong complement to the New Gold targeting strategy which is currently focusing on the central third of the Fifield project tenement area in the regional aircore/auger programs.

“Rimfire and New Gold continue to pursue the discovery strategy within the Fifield region as outlined for 2017 ([Hyperlink: ASX Announcement 22 February 2017 - Discovery Strategy Outline with Work Programs Commenced](#)).”

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### **Highlights – Rimfire Corporate**

- ❑ **The cash position at 30 June was \$2.568m**
- ❑ **Melanie Leydin was appointed as the new Company Secretary**
- ❑ **The Company also appointed Greg Keane as Chief Financial Officer**
- ❑ **By Invitation the Company presented the Sorpresa Discovery Case Study ([click Hyperlink](#)) at the Mineral Council NSW event in May attended by more than 100 delegates**
  - New Gold Inc. was also awarded “NSW Explorer of the Year” for its activities at its Peak Mines, NSW
- ❑ **An application to the Ausindustry R&D program was successful and resulted in a cash inflow of \$0.484m to the Company for activities in the 12 months to 30 June 2016**

#### **CEO and Managing Director, John Kaminsky further commented:**

“The Rimfire management team has been greatly enhanced with the appointments of Melanie Leydin and Greg Keane who both bring significant resource experience to the Company in their respective roles of Company Secretary and Chief Financial Officer. The Company continues to seek appropriate skills for the next stages of its development.

“The Company maintains a healthy financial position underpinned by the structure of the earn-in arrangement with New Gold Inc.

“The deal structure maximises incentives for both Rimfire and New Gold Inc. to continue to unlock the value of the project for the longer term and provides additional technical resources while still offering Rimfire great flexibility in the pursuit of discovery concepts in the Fifield project area.

More details are provided, as follows, on the work programs undertaken in the 2<sup>nd</sup> quarter and the concepts reviewed.

### **Tout Intrusive Extension Concept**

Rimfire’s field mapping and interpretation of the geophysics north of Sorpresa indicates that aspects of the geology from the Tout Intrusive may continue into the Rimfire tenement holding. The concept area is referred to as Tout East, extension (Figure 1).

The laterite geology<sup>2</sup> profile intersected in the phase 1 aircore drilling in this Tout East area provides additional validation of this concept. Five of eight aircore holes drilled encountered laterite up to 40m thick (field review).

The drilling was an important next step in confirming prospective geology within Rimfire’s tenements, that may have an association with the adjacent Tout Intrusive, which hosts Cobalt, Nickel, Scandium and Platinum in laterite.



The Tout East area has Alaskan-Ural rocks with laterite. This area seems more structurally complex than Tout itself, which could favour the introduction of gold into the metal possibilities at Tout East. There is evidence to suggest a major structural corridor passes through the Company tenements in this location.

The Company has not previously encountered laterite geology in drill intersections in any of its prior work at Fifield.

The area between the Fortuna prospect and the emerging Tout East area has also benefited from the recent high resolution magnetic survey and mapping, with gold potential also being seen in this area.

### **Sampling submissions**

A range of samples from new and historic programs was submitted to external laboratory during May with additional samples due for submission in June and July.

- The re-assay of pulps is being undertaken for a selection of historic surface rock, soil, and auger samples, which were previously only assayed for gold and/or a limited suite of other elements.
- 23 surface rock samples from the Gobondery Range area and numerous other locations across the project were submitted for multi-element analysis.

**Table 1: Sample submissions for gold and multi-element analysis in May**

Type	Number of samples	Au method	Multi-element method	comments
Surface Rock	25	Au-AA24	ME_ICP61	Surface rock samples
Drill chips/cuttings	92	Au-AA24	ME_ICP61	aircore/auger rock chips
Soils	92	Au-AA24	ME_ICP41	aircore/auger soil samples
Pulp Rock	134	N/A	ME_ICP61	Surface rock re-assay pulps
Pulps Soils	1550	N/A	ME_ICP41	Soils re-assay pulps

### **Significant assay results**

The initial review of the aircore and auger drilling results indicate multiple areas of anomalous gold and base metals in both soil and bedrock. (Figure 2 displays the bedrock gold data and interim expanded geology understanding).

The top 12.5% of analyses grade 7 to 80 ppb gold and can be seen to define specific areas of anomalism and possible trends. While the gold grades appear generally subtle, the data spacing is broad (250m x 1,000m) and in this context the results are considered encouraging.

Based on the gold bedrock results now received, expansion of the planned infill areas is warranted. The next stage of data interpretation will involve combining all new data with historic data points before refining plans for infill drilling.

### **Spectral studies**

Extensive spectral analysis and interpretation was completed with key outcomes incorporated into drill targeting plans currently underway. This work provides further detail around potential rock alteration zonation which may provide additional targeting vectors toward prospective mineralisation at Fifield.

<sup>2</sup> Laterite is a soil and rock type rich in iron and aluminium that develops by intensive and long-lasting weathering of the underlying parent rock. The possibility of enhanced metal concentrations derived from the underlying parent rocks makes this type of geology potentially rewarding for discoveries.

## ***Geochronological Age Dating Samples***

Samples (primarily intrusive rock types) were selected from the central third of the Fifield project area to assist in the understanding of the local geochronology and timing of mineralization.

Additionally, galena samples associated with Sorpresa are to be analysed for Pb isotope dating. The galena is observed in association with gold/silver mineralization and is hosted within the porphyry sill associated with the Sorpresa gold-silver resource.

## **3<sup>rd</sup> Quarter Target Prospect Areas involved in the RC and Diamond Core Drilling Program**

Reverse Circulation (RC) and Diamond Core (DD) drilling will be ongoing through July and August. The Diamond Core drilling (as tails) will follow initial pre-collars drilled with Reverse Circulation on three prospects. Drill hole locations, sequencing and depths may be changed as results, logistics, access and ground conditions warrant.

Figures 1 & 2 shows the primary target areas (★) for RC and DD drilling. All required permits and notifications are in place.

The initial five target areas planned for drilling during July and August are:

- ❑ The **Golden Chrome**<sup>3</sup> target lies within a zone of strong phyllic alteration that has been mapped over an area 800m in diameter, potentially representing the near surface expression of a mineralized porphyry system at depth.

Additional evidence is provided by primary coarse untraveled ragged gold in the bedrock or base of the Platina Lead historic mine spoils. The Platina Lead follows the soft highly altered ring fault to the Golden Chrome intrusive system.

- ❑ The **Moonrise** area located along the Eclipse trend, centres on a zone of anomalous gold in soil and rock chips near the projected trace of an interpreted thrust fault in close proximity to a dioritic intrusive.

- ❑ The **Transit** area to the north of Moonrise, is a newly defined surface gold anomaly within the Eclipse trend, with adjacent base metal signatures and nearby epithermal boiling textures in rock float.

The gold surface expression remains encouraging with an area of more than 200m x 200m of elevated gold (up to 2.3g/t Au) in bedrock based auger drilling, within a wider envelope of anomalous gold in soils (>9ppb gold anomaly of 750m x 500m size).

- ❑ The **Carlisle** target centres on an 800m diameter strong magnetic anomaly partially tested with a series of shallow RC holes drilled by Rimfire in 2015. Previous reconnaissance sampling in the area identified favourable silica alteration and anomalous copper and gold, including up to 23.0 g/t Au in rock chips.
- ❑ The **Gravity Thrust** target, is based on Rimfire's interpretation of gravity and magnetic contrast which suggests a possible repeat of Sorpresa style mineralization along a 2km subparallel feature to the south of the Trench31 area.

Additional areas may also be considered for drilling.

## **2<sup>nd</sup> Quarter RC Drilling Results received within Sorpresa Resource**

Results were received in April from in-fill RC drilling undertaken at the Sorpresa gold and silver resource at Roadside (1422m) and Boundary Gate (396m) areas, with drilling depths ranging to 90m.

Some excellent results were achieved, which included high gold results not previously seen in the Boundary Gate area. Significant intercepts ranging from 2 to 28 meters were returned at both drill locations.

In due course these results will be incorporated into an updated model of the high grade lenses at Sorpresa. Additional metallurgical test work has been planned and will be undertaken during the 3<sup>rd</sup> Quarter.

During the 3<sup>rd</sup> quarter activities will focus on the discovery potential in the larger 7km x 2km Sorpresa Corridor, where targets are planned for drilling, including the Gravity Thrust and Golden Chrome targets (see Figure 1, 2 & 4).



Golden Chrome Prospect

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<sup>3</sup> At the time of writing drilling was underway at Golden Chrome prospect

## **COMMODITY PRICING FOR THE JUNE 2017 QUARTER**

As at 28<sup>th</sup> July 2017, precious metal prices recovered from low points in the quarter. Prices quoted [www.kitco.com](http://www.kitco.com), in New York based on closing Ask in USD).

	Price (Ask) 28 July 2017
Gold	USD\$1270/oz
Silver	USD\$16.84/oz
Platinum	USD\$940/oz

## **CORPORATE ACTIVITIES**

### **Cash, Funding, Facilities and Investments**

As at 30<sup>th</sup> June 2017 the Company had \$2.568 million in cash.

Commencing 1<sup>st</sup> quarter 2017, the Company has been receiving re-imburement for certain expenditures incurred as part of the earn-in agreement and the implementation of a services agreement with New Gold Inc.

An application for Ausindustry R&D expenditure resulted in an inflow of \$0.484m.

### ***Capital structure***

52,238,454 Options expired 15<sup>th</sup> May 2017, and 147,497 Options were exercised at 3.5 cents.

As at 30<sup>th</sup> June 2017 the capital structure of the Company was:

Fully Paid Ordinary Shares	943,477,555
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### **Tenement Position**

The total area held by the Company remained unchanged at Fifield is 669 km<sup>2</sup>. (Figure 3)

The Company maintained its tenement interest in the Broken Hill area, with 78km<sup>2</sup> held with Perilya as operator.



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*Figures, Appendices, tables provided for reporting under JORC 2012 compliance*

Figures and Location and maps	Pages 6~9
Company Background and Competent Authority Declaration	Pages 10~11



Figure 1: Fifield District Prospect Map – Adjacent Deposits to the North – on geology and structure background (Rimfire interpretation pre 2017)

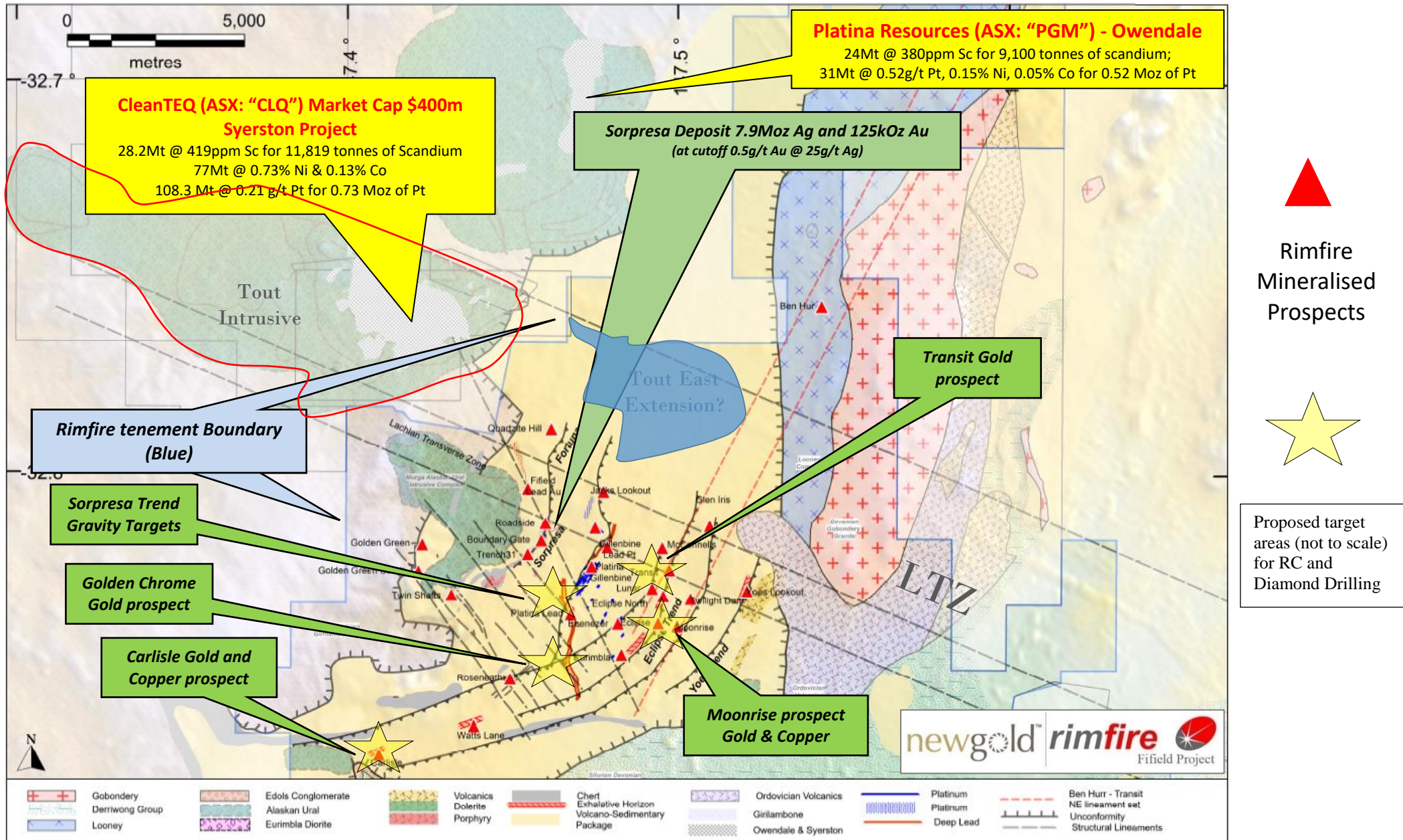
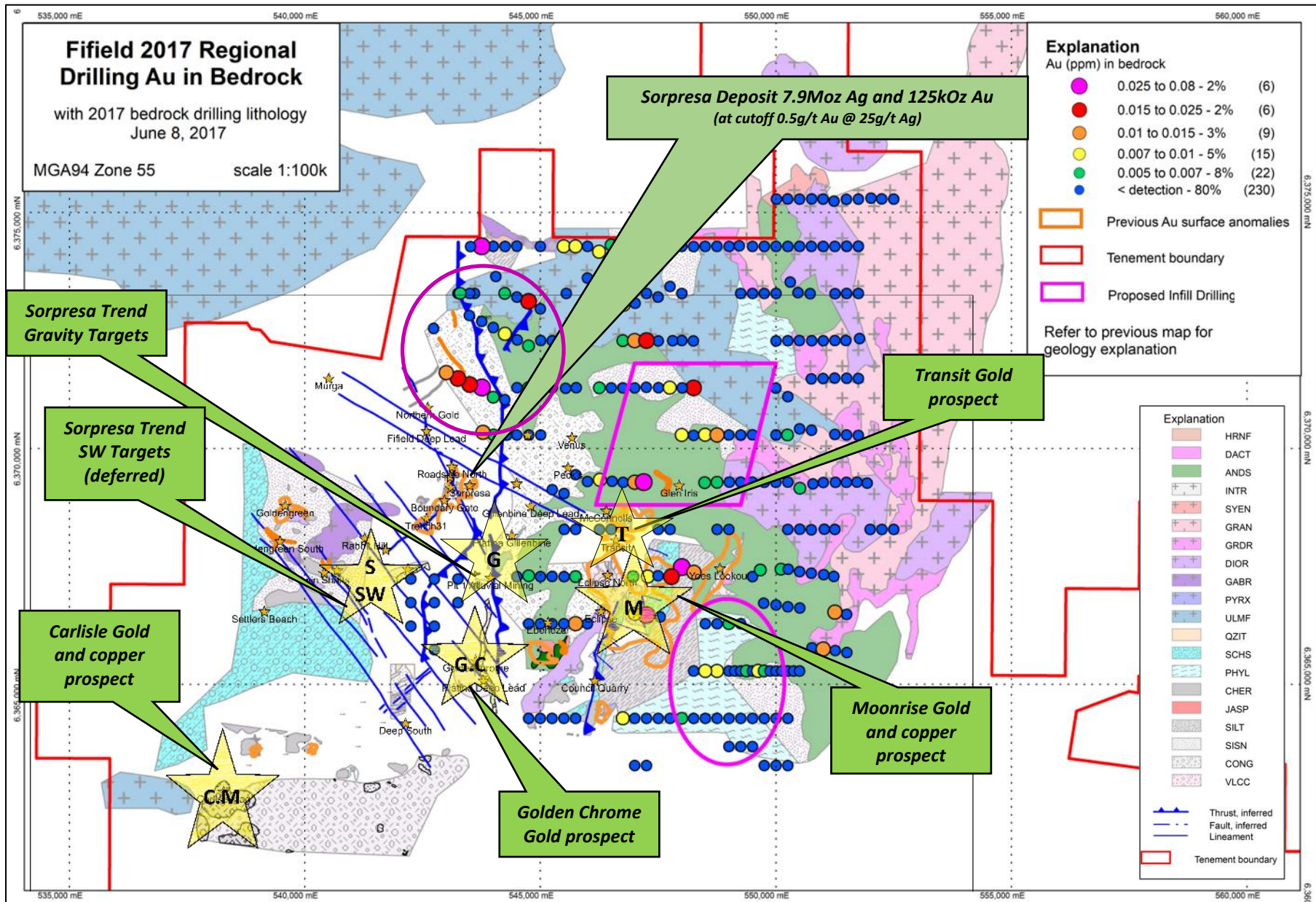
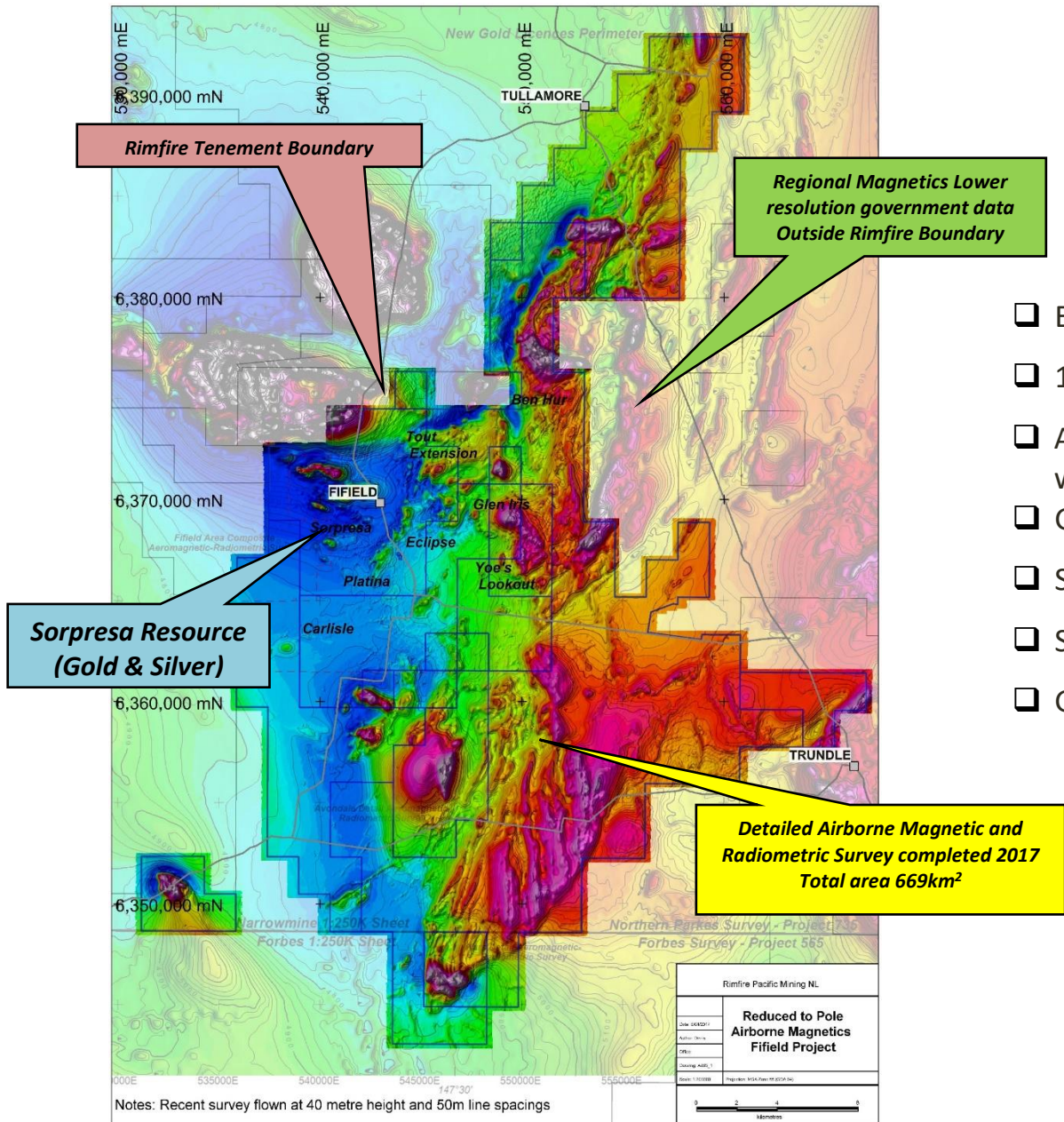




Figure 2: New Gold Inc. Interim Geology Map (June 2017) Fifield District – with recent Aircore/Auger Gold Geochem – showing Drill Target areas



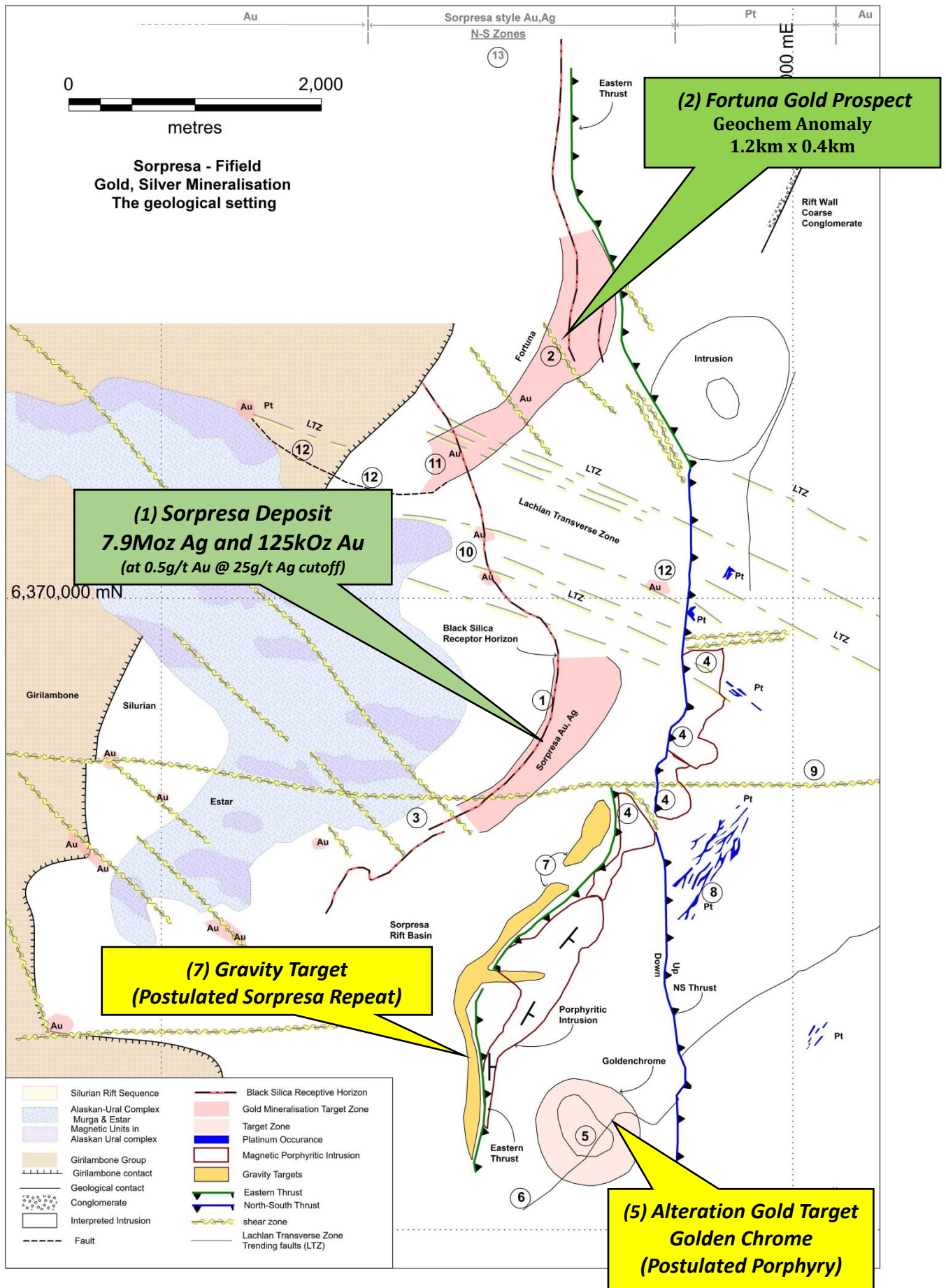
**Figure 3: Map of Total Fifield Tenements area 669km<sup>2</sup> – Showing Completed Airborne High Resolution Geophysics Survey (Magnetics Reduced to Pole)**



- Expanded the use of geophysics (covers 669km<sup>2</sup>)
- 13,000 line km, flown at 50m width x 40m height
- A reasonable proxy for geology and structure coupled with Regional Aircore/Auger drilling
- Greater definition than government geophysics
- Structure and target definition enhanced
- Stitched with existing high resolution Rimfire surveys
- Geochemistry is used to complement the geophysics



Figure 4: Geological & Structural Setting for Sorpresa Corridor – Discovery Growth & Gold Targets



## ABOUT RIMFIRE

Rimfire Pacific Mining is an ASX listed (code: RIM) resources exploration company that has its major focus at Fifield in central NSW, located within the Lachlan Transverse Zone (LTZ). In 2010~11 the Company made a greenfields gold and silver discovery, named "Sorpresa", announcing a JORC Compliant Inferred & Indicated Maiden resource in 2014.

The current main Sorpresa strike line containing gold and silver mineralisation is approximately 1.5km in length and is at various stages of further discovery growth assessment, including the larger 7km x 2km Sorpresa corridor.

Multiple prospects involving hard rock potential for Gold, Silver, Copper and Platinum have been established within a >6km radius of the Sorpresa discovery at Fifield, which is part of the contiguous 669km<sup>2</sup> tenement position held.

[Earn-in by New Gold Inc. \(website: New Gold Inc.\)](#)

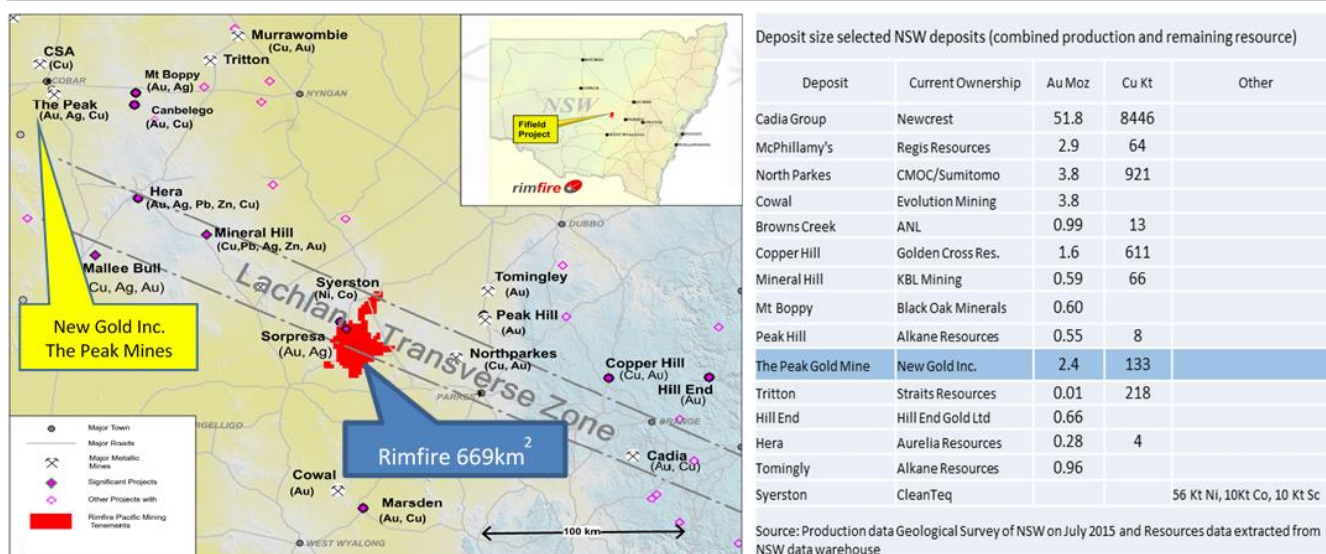
On 28<sup>th</sup> October 2016, Rimfire and New Gold Inc. (TSX/NYSE code: NGD) signed an [Earn-in Agreement](#) (ASX Release) under which New Gold Inc. has committed to spend A\$2 million during the first 12 month earn-in period (to 21 March 2018). Rimfire has direct discretionary control over \$300,000 (i.e.15%) of this expenditure.

New Gold Inc. may choose to spend more on the property (up to \$12 million in total, within 5 years) to earn up to a 70% interest in Rimfire's tenements in the Fifield district.

[Aspiration target in the wider Fifield District](#)

The discovery aspiration for the Fifield area is an aggregate discovery outcome in excess of 4 million ounces of gold equivalent metal, being capable of supporting a mine life in excess of 10 years, and within the lower third of industry costs of production.

### Location map of Rimfire Tenements within the LTZ, showing district project context from others



## Competent Persons Declarations

The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and/or compiled by Colin Plumridge who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.

Mr Plumridge has over 45 years' experience in the mineral and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. Colin Plumridge has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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'. Colin Plumridge has previously consented to the inclusion of the matters based on the information in the form and context in which it appears.

**Historic information and previously published material under 2004 JORC standard that is referenced in this report:**

The information provided in “About Rimfire Pacific Mining” is available to view additionally on the Company Website at hyperlink: [ASX Announcements](#). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements.

In addition, the Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements which operated under the 2004 JORC reporting requirements. Mr Colin Plumridge as a Competent Person consented to the inclusion in the original reports in the form and context in which each appeared, please refer to the Competent Persons declaration above for additional information.

**Table 2 Sorpresa Mineral Resource estimate reported under JORC 2012 code**

Resource	Cut off	Category	Mt	Grade		Contained Metal	
				(g/t) Au	(g/t) Ag	Koz Au	Moz Ag
Gold	0.5 g/t Au	Indicated	2.0	1.14	27	73	1.7
		Inferred	1.0	0.9	12	29	0.4
		<b>Total</b>	<b>3.0</b>	<b>1.06</b>	<b>22</b>	<b>103</b>	<b>2.1</b>
Silver	25 g/t Ag	Indicated	2.1	0.21	62	14	4.2
		Inferred	1.2	0.19	40	7	1.6
		<b>Total</b>	<b>3.4</b>	<b>0.20</b>	<b>54</b>	<b>22</b>	<b>5.8</b>
Combined	0.5 g/t Au & 25 g/t Ag	Indicated	4.1	0.67	45	88	5.9
		Inferred	2.2	0.51	27	37	2.0
		<b>Total</b>	<b>6.4</b>	<b>0.61</b>	<b>38</b>	<b>125</b>	<b>7.9</b>

Notes:

1. Sorpresa Mineral Resource reported to JORC 2012 standards, at 0.50 g/t Au and 25g/t Ag cut-off
2. The figures in this table are rounded to reflect the precision of the estimates and include rounding errors.