

5th September 2018

ASX Release

Detailed Gravity Survey Scheduled at Fifield NSW

Aims to assist regional gold-copper discovery targeting in Southern Ordovician Area

Rimfire Pacific Mining NL
ABN 59 006 911 744

Corporate Details:

ASX Code: RIM

Issued capital:

943,477,555 FPO
2,300,000 Unlisted Options

Cash Status (30-06-2018):

\$0.894m

Mineral Focus:

Gold, Silver, Copper,
Cobalt, Platinum

Established Resource:

Sorpresa
125k oz Au, 7.9m oz Ag
(inferred and indicated)

Directors:

Non-Executive Chairman:

Ian McCubbing

Managing Director & CEO:

John Kaminsky

Non-Executive Directors:

Ramona Enconniere
Andrew Greville

Company Secretary:

Melanie Leydin

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M. Love Southern Area

Highlights and program objectives

- ❑ High resolution gravity survey over an area of 240km² (400m x 400m spacing) to assist the generation of targets in search for major gold-copper deposit styles
- ❑ The immediate focus is the Southern Ordovician area, seen as prospective for Cowal and Northparkes style mineralisation
- ❑ The survey complements recently completed mapping and sampling programs conducted
- ❑ Expected survey commencement is in 2nd week in September, with results available early October

Rimfire Pacific Mining NL (**ASX: RIM**) ("the Company" or "Rimfire") has secured a contractor to complete detailed gravity survey over areas identified as most prospective for Northparkes and Cowal style gold-copper deposits.

Work progressing from the Southern and Central Ordovician Area mapping and sampling program reported ([ASX 3rd July 2018: Fieldwork in the Southern Project Area Highlights Gold Potential](#)) and review of exploration data associated with the Steeton-Pluto (Eastern Ordovician) area has defined a priority area for gravity data collection.

The survey area (Figures 1&2) covers 240 km² and includes an indicated subtle gravity low (based on broad, low resolution regional gravity at 3.8km~7.4km spacings). This low is coincident with the magnetic high associated with the proximal volcanics identified in mapping by Senior Geologist, Mike Love ([ASX 21st March 2018 New Mapping & Sampling Program in Southern Area at Fifield](#)).

High resolution data at a density of 400m x 400m should allow identification of significant faults and features that may be associated with porphyry systems. The survey is aimed at assisting Rimfire to more rapidly vector towards drill targets in this prospective area for gold-copper mineralisation. Limited exploration activity was undertaken historically in this Southern area prior to Mr Love's current work and review, which has now identified Ordovician geology potential for the first time. Success in this initial survey will encourage the collection of further gravity data across broader areas of the Fifield project tenement package.

The survey contractor is expected to mobilise to Fifield within the next week. The Company is currently finalising consultations with local landholders to ensure efficient land access for the gravity survey, which is expected to take just over two weeks to complete. On this basis, results from the survey will be available around early October.

John Kaminsky, CEO, Rimfire commented:



"This gravity survey is a logical next step to further leverage the invaluable mapping and sampling work to date in this highly prospective and emerging Southern Ordovician Volcanics area, which was previously unrecognised. The gravity survey will provide an important extra layer of data to help guide our subsequent drilling in the gravity surveyed areas.

"Close space gravity previously used by the Company provided an excellent correlation to the spatial position of the Sorpresa gold and silver discovery. On a larger district scale, anomalous gravity lows coincident with magnetic highs have been representative geophysical signatures of deposits at Cowal and Northparkes (Figure 3). Variations on these deposit themes are possible at Fifield, given the geological and geochemistry setting, with gravity providing further insights."



JOHN KAMINSKY
CEO and Managing Director

Figure 1: Planned gravity survey area over regional gravity image

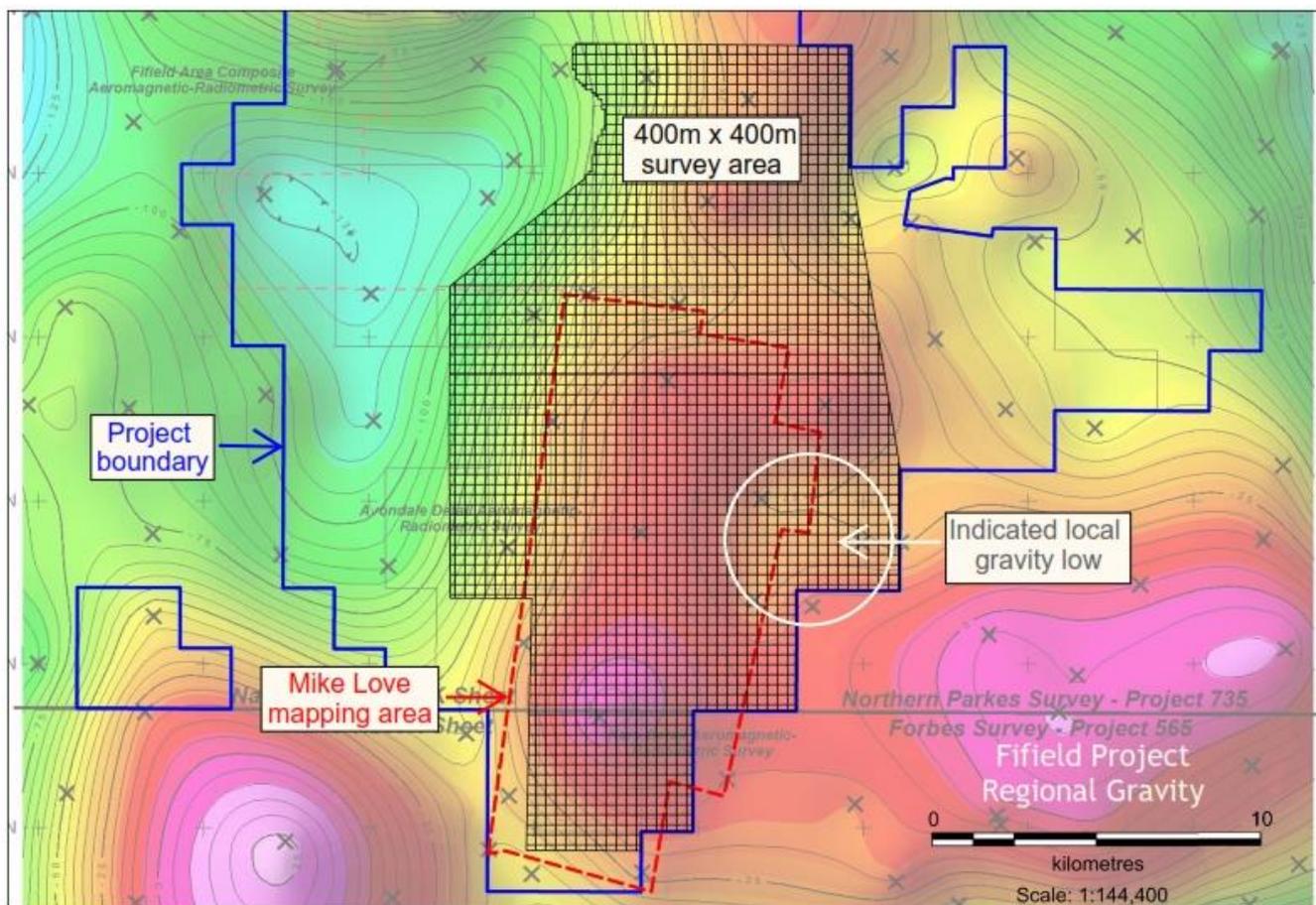


Figure 2: Planned gravity survey area over First Vertical Derivative Magnetics image

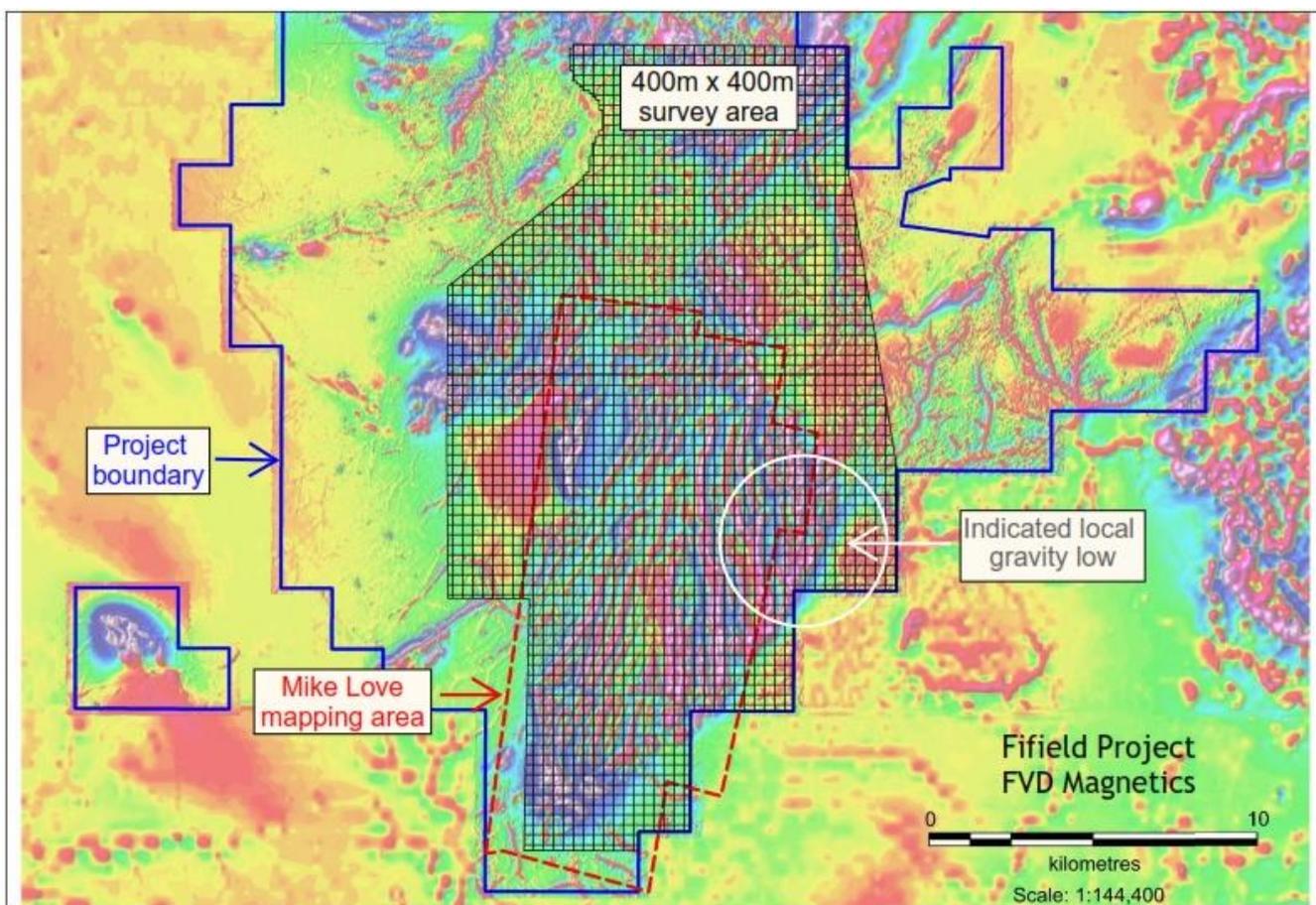
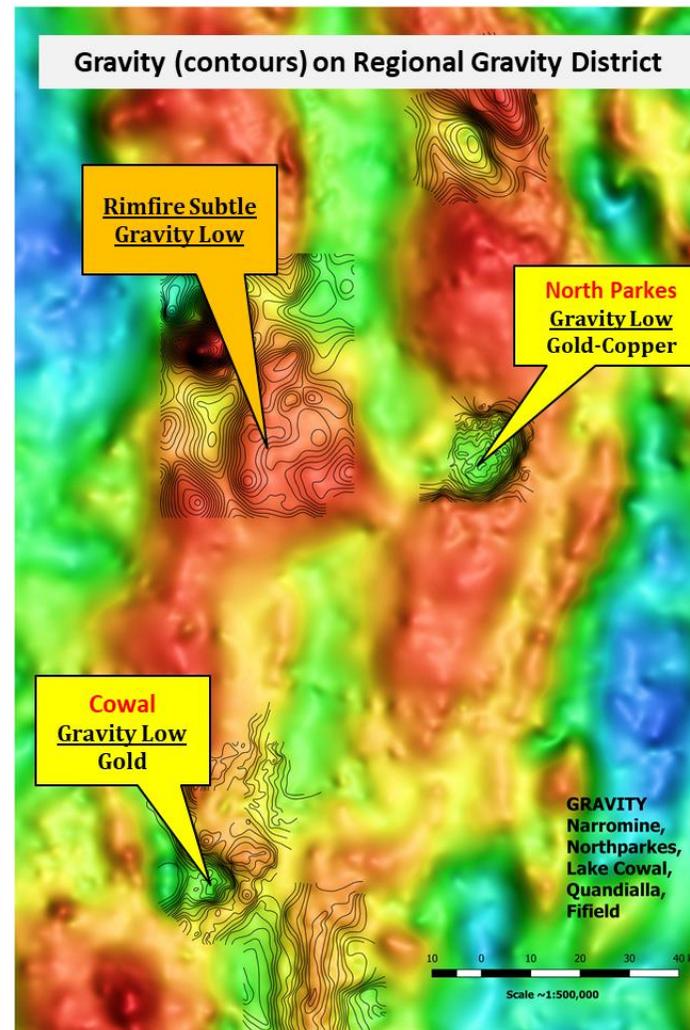
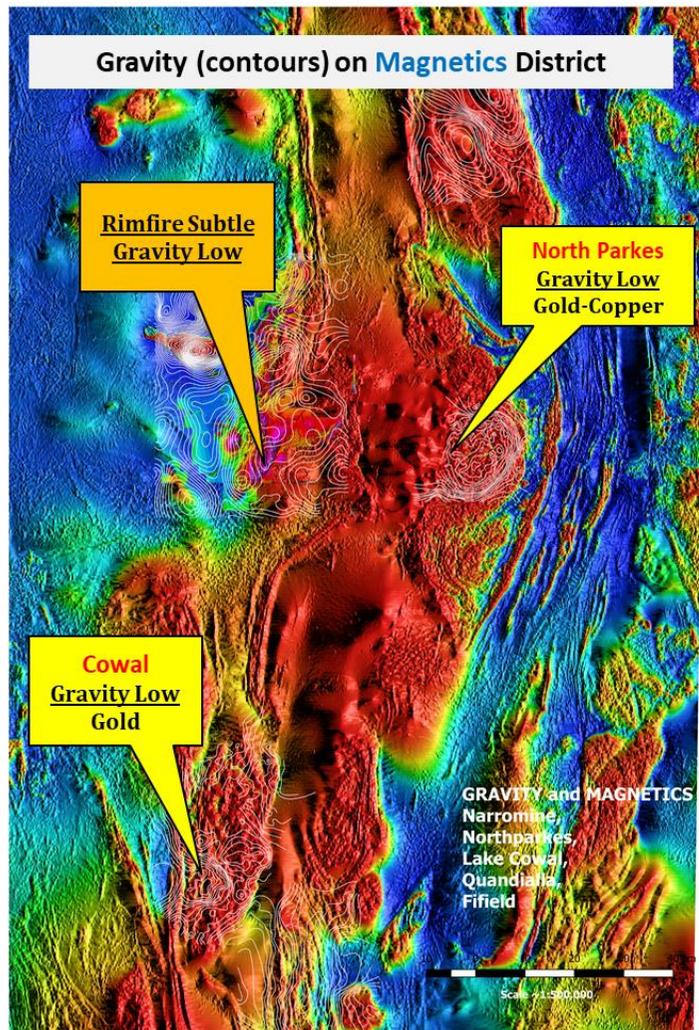


Figure 3: Gravity contours of major district deposits (Cowal and Northparkes) shown on regional magnetics and regional gravity



- Note overall North-South orientations
- Gravity Lows associated with some major district deposits, coincident with Magnetic Highs
- Deposits hosted in Ordovician age rocks
- Fifield at the intersection of North-South structure and LTZ
- Prospective for major deposits

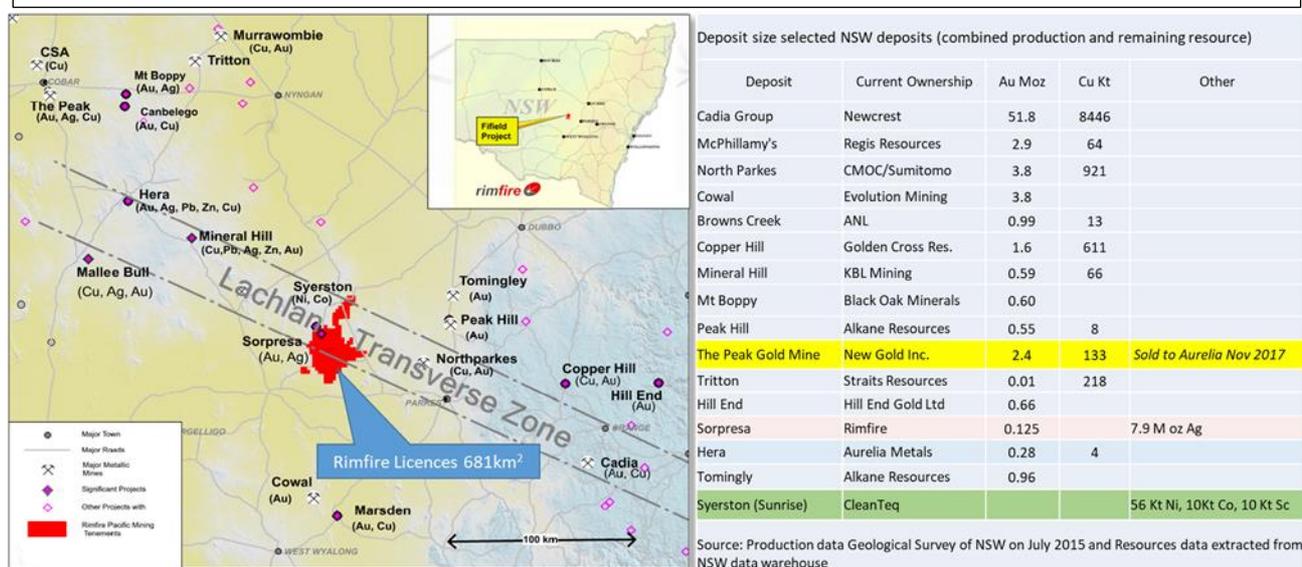
ABOUT RIMFIRE

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 discovery history of Sorpresa is shown in the [Hyperlink to the ASX presentation to the Mineral Council May 2017](#). High grade intersections at Sorpresa have included:

Fi160	14m @ 21.9g/t Au from 34m	Incl. 2m @ 87.5g/t Au and 6m @ 94g/t Ag
Fi212	14m @ 24.4g/t Au from 26m	Incl. 2m @ 118g/t Au AND 26m @ 155g/t Ag from 14m
F1241	10m @ 1.01g/t Au AND 535g/t Ag from 70m	Incl. 2m @ 2020g/t Ag
Fi329	1m @ 114g/t Au from 159m	
Fi689	9m @ 18.15g/t Au AND 100g/t Ag from 18m	Incl. 1m @ 69g/t Au AND 254g/t Ag
Fi706	7m @ 13.41g/t Au AND 751g/t Ag from 19m	Incl. 1m @ 76.7g/t Au AND 2490g/t Ag

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

Location Map of Rimfire Tenements within the LTZ Corridor showing district project context



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 681km² tenement position held. The project area is very accessible by bitumen road, located within easy access to Sydney.

More recently, Rimfire has also examined for cobalt potential within its tenements.

Aspiration target scale in the wider Fifield District

The discovery aspiration ([established with New Gold Inc., during the 2017 earn-in venture](#)) 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.

Recent Presentation and ASX Activity Summary and Analyst reports related to Rimfire

- The Company released its [Investor Forum Presentation on 31st January 2018](#)
- A research report on the Company was compiled by Independent Investment Research (IIR) April 2018 – Senior Analyst Mark Gordon, and is available on the Company website (www.rimfire.com.au)
- [March 2018 Quarterly Activities Report](#)
- [June 2018 Quarterly Activities Report](#)

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 Todd Axford who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.

Mr Axford has over 23 years' experience in the mineral and mining industry. Mr Axford is employed by Geko-Co Pty Ltd and is a consulting geologist to the Company. Todd Axford 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'. Todd Axford consents to the inclusion of the matters based on the information in the form and context in which it appears.

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

The information provided in "About Rimfire Pacific Mining section" is available to view 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.

Table 1: 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
		Total	3.0	1.06	22	103	2.1
Silver	25 g/t Ag	Indicated	2.1	0.21	62	14	4.2
		Inferred	1.2	0.19	40	7	1.6
		Total	3.4	0.20	54	22	5.8
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
		Total	6.4	0.61	38	125	7.9

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.

Forward looking statements Disclaimer:

This document contains "forward looking statements" as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals. Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives as the case may be, believe to have a reasonable basis for implying such an expectation or belief. However, forward

looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any "forward looking statement", or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.