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Encouraging East-West Soil line Assays at Sorpresa Gold Prospect

- Results reinforce and extend the gold anomaly

The Company has received positive soil geochemistry assay results for the samples taken on an East-West orientation at the Sorpresa Fine Gold (Au) prospect.

The soil geochemistry map at Sorpresa (Appendix 1 & 2) is now a combination of the original North-South (N-S) soil lines and the recent East-West (E-W) soil lines. The results are encouraging to the increased size of the Au mineralisation and the degree of continuity suggested.

These new Au in soil results integrate with and enhance the earlier more widely spaced results achieved on the N-S orientation. This demonstrates the Sorpresa Au soil anomaly is repeatable, robust, increasing and remains open.



Soil sampling and Auger drilling into bedrock looking to extend the Au anomaly SW from Trench 31 towards historic workings

Executive Chairman, John Kaminsky advised *"It needs to be noted that soil grades at Sorpresa appear to significantly understate the bedrock grades where we have previously tested, as evidenced in the recent auger drill and trench 31 results, and also shown in limited RC drilling done in 2008. A soil geochemistry result of plus 25ppb Au is very likely derived from significant bedrock mineralisation. The Sorpresa system is very strongly Au mineralised..."*

Head of Exploration, Colin Plumridge commented *"...in addition, it should be understood that the Company has constructed the Au in soil contours based only on the "residual soil" areas. However, geological mapping of the soil character at Sorpresa, indicates that 50% of the current soil grid is of a "non-residual" (e.g. alluvium) nature, so these areas could still hide prospective Au mineralisation, simply not yet fully reflected in the more diluted and dispersed soil geochemistry on these locations to date ..."*

...the work programs continue at Sorpresa to define and extend the Au mineralisation in the open areas. Substantial additional soil lines and auger drilling lines into bedrock are being submitted for assay also...to date we have extensive work of this type in a 2 km long corridor, so we are very interested in the balance of results for these programs, leading to focused targets for the planned RC drilling, probably second half of April."

The next stage of soil sampling and bedrock auger drilling at Sorpresa is due for completion shortly. Approximately 200 auger hole samples await laboratory assay, with more holes to be drilled in the current program.

Comments on the Current Exploration Work at Sorpresa

- ◆ **An East-West (E-W) soil line sampling program was recently completed with the following key features**
 - Approx. 500 samples were taken, on 50m or 100m line spacings with 25m intervals on samples, sieved to -5mm
 - An updated Au in soils map with detailed assay results and contours of Au anomalism is provided
 - **Results are consistent with, enhance and extend the earlier soil sampling programs conducted N-S**

- ◆ **The Au in Soil anomaly remains open in several directions and further examination of the area has already commenced**
 - The anomaly is approx. 1.9km long x 0.5km wide at the report date
 - In particular, at the SW corner, the mineralisation appears to be expanding, as the work heads in that direction.
 - New soil lines will test this area for further extension
 - **New auger drill testing of bedrock is also underway using two in-house rigs**
- ◆ **The entire soil grid area was geologically mapped for interpretation of soils, drainage patterns and geological structure**
 - The soil types were interpreted, providing important context and confidence levels to the soil geochemistry results
 - Approx. 50% of the soil area sampled is considered predominantly residual in character, these samples form the basis for the Au in soil geochemistry contours
 - The non-residual soil areas require further testing of the underlying bedrock with auger drilling to better determine Au mineralisation potential in these locations

A Note on the Relevance of Soil Character

All soils have a history of development. The soils at Sorpresa can be residual over bedrock, with a direct connection to the underlying mineralisation. To date, reliable soil areas cover more than half of the Sorpresa area.

The remaining soils are considered more diluted and dispersed, hence can provide a greatly muted response when tested for Au, or are generally less reliable as a direct indicator of the underlying bedrock mineralisation. In this case, the unreliable soil areas with Au potential are tested by auger drilling through cover into the underlying bedrock.

Assay results and the methods used are included in **Appendix 1** for the E-W soil samples taken.

(Previous details already announced to ASX on 13th October 2010¹, 28th October 2010², 15th December 2010³ and 25th January 2011⁴ provide important context to the ongoing programs at Sorpresa **with hyperlinks below**).

Background Explanation on Exploration Approach and Work to Follow at Sorpresa

An exploration program of soil geochemistry and bedrock geochemistry using auger traverses, followed by more detailed assessment using limited trenching and RC drilling with conventional fire assays has enabled the discovery at Sorpresa to take place to date.

The exploration methodology going forward continues to focus on the following approach:

- **In general, soil geochemistry will be used as a broad scale and sensitive scoping tool for elevated Au (>5ppb)**
 - This low cost method works well in the residual soils at Sorpresa and can be deployed rapidly.
 - Detailed mapping of soil types is an important part of this work.
- **Auger traverses will test bedrock geochemistry associated with surface based Au anomalism in the soils**
 - This assists the understanding of geological association and 2D spatial definition of the Au mineralisation.
- **Trenching will be applied to selected auger traverses and other areas as appropriate**
 - This provides continuous sections of geology to establish Au association to rock type and structure.
 - The auger traverses can miss higher grade Au mineralised sections due to the discrete sampling method of the auger.
 - Au grade can be established in large continuous sections, if present.



Auger Drilling into Bedrock 5m spacings

¹ ASX Announcement – [13th October 2010 Bedrock Assays Confirm Sorpresa Fine Gold Potential at Fifield](#)

² ASX Announcement – [28th October 2010 Sorpresa Fine Gold Prospect Trench Produces Excellent Assay Results](#)

³ ASX Announcement – [15th December 2010 Sorpresa Fine Gold Prospect Further Examined at Fifield NSW](#)

⁴ ASX Announcement – [25th January 2011 Gold Mineralisation Examined in more detail at Sorpresa Prospect](#)

- Dip and orientation on Au mineralisation can be assessed to assist deeper RC drilling.

➤ **Deeper RC drilling will be conducted once sufficient 2D data and orientation is established on the Au mineralisation**

- This is necessary to be cost efficient, optimise intersections and minimise environmental impact.
- Some holes will be needed to gain greater geological insight and structural orientation.
- The goal is to intersect the higher grade Au mineralised zones and provide 3D orientation at depth.

The Company will be trying to establish the correlation variability between auger traverse Au grades in bedrock and the true bedrock Au grades. Some trial and error will be a feature of this work, testing both high and low grade Au results in the augered bedrock, to help determine better defined bedrock targets for deeper RC drilling.

The approach being adopted represents conventional exploration. It should enable rapid exploration of Sorpresa over a large area, with focussed subsurface targets that are identified and tested quickly, in a fairly continuous manner.

Sorpresa Au and Base Metal Area – Background Summary

Whilst it is still at an early stage, in the Company’s opinion, the larger Sorpresa area is already established as a disseminated fine gold area of considerable promise. The mineralisation is amenable to both surface based geochemical prospecting and RC drill evaluation. This straightforward technical pathway greatly enhances the chance of economic success.

The project area is located immediately south of the Township of Fifield NSW and sits within the well established, highly mineralised regional corridor, the Lachlan-Cadia Lineament⁵. This corridor includes the Riotinto owned North Parkes Copper-Au mine and the Newcrest owned Cadia Valley Au-Copper mines amongst others.

The larger Sorpresa area was covered with broad spaced lines of soil geochemistry earlier in 2010 (100m line spacings and 25m sample interval). This coverage was based on the early concept that the originally discovered Sorpresa style of mineralisation could be extensive, but unrecognised.

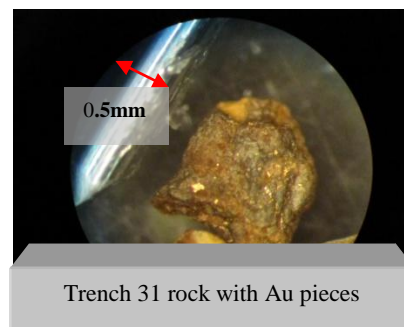
The assay data on the soil geochemistry combined with the October/December 2010 auger traverses and Trench 31 placed over selected Au anomalies within these soil results confirms that the larger Sorpresa area represents Au anomalism that is large and significant.

Mineralisation

As indicated by the soil geochemistry, the mineralisation seems to occur in three parallel lines dominated by breccia zones with associated disseminated sulphide gossan and alteration, but very low in vein quartz.

The mineralisation decomposes to soil, leaving little or no trace of its presence on the surface. The Au being both very fine and disseminated did not suit the miners of past eras even if it had been located. Modern exploration and processing techniques make this mineralisation an ideal style to pursue.

The Au is very fine and disseminated through the breccia as confirmed with the Trench 31 sampling (October 2010) undertaken producing repeatable Au assays.



Interpreting Trench 31 within the Sorpresa area

- The high Au grade of Trench 31 confirms that the Sorpresa-Trench 31 corridor has a strength of gold mineralisation that is encouraging to the Company’s opinion that this area is an unexplored gold field.
- Both tested areas of the currently known Sorpresa-Trench 31 corridor are centred on brecciated sediments, with fine gold contained in a strong mineralised zone with negligible vein quartz, 1.2km apart and open ended.
- The larger **Sorpresa prospective gold area at February 2011 exceeds 1.9km x 0.4km and is essentially open ended**⁶

⁵ See Appendix 5 – Location maps

⁶ See Appendix 2

The Company has noted many fine disseminated gold occurrences focused on sediments in the Fifield district over a number of years, of which Sorpresa is only one such area⁷.

Earlier Background (2008) on Sorpresa Area⁸

The Sorpresa prospect originally consisted of a relatively small Au and base metals in soil anomaly located near an historic shaft, after a rock chip from the shaft returned a value of 8.8g/t Au⁹. The prospect was RC drilled by Rimfire in 2008 and a body of Au mineralization inferred from the analyses of the RC drill hole samples. The host to mineralization was also a brecciated sediment with an uncertain size and orientation. The Company was of the view at that time that this mineralisation may not have occurred in isolation and this has proven to be correct.

Explanatory video is provided by the Company for the purpose of better understanding the Sorpresa Area and style of work conducted. These videos can be found on the Company website at www.rimfire.com.au in the **Presentations and Videos** section.

The spot closing metal prices as at 17th February 2011 in New York were Platinum USD\$1,849/oz and Gold USD\$1,385/oz (Reference KITCO.com).



JOHN KAMINSKY
Executive Chairman

The information in the report to which this statement is attached that relates to Exploration Results is compiled by Mr Colin Plumridge, who is a Member of The Australian Institute of Mining and Metallurgy, each with over 40 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. He has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which is being undertaken to qualify as Competent Persons as defined in the 2004 edition of the "Australian Code for Reporting of Mineral Resources and Ore reserves". Mr Plumridge consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

⁷ See Appendix 4

⁸ [Rimfire Exploration Report June Quarter 2008 pages 5~7](#)

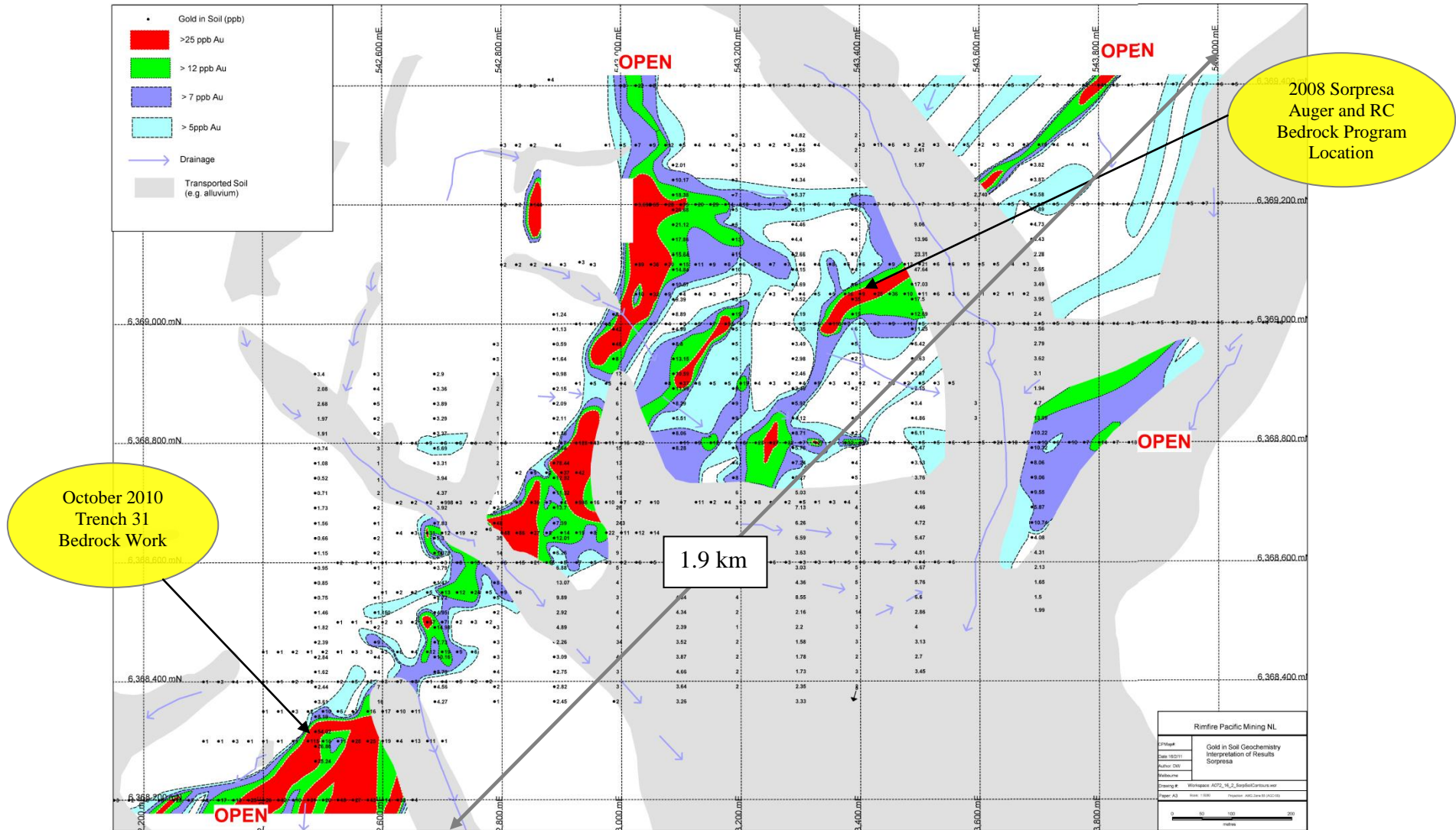
⁹ [Rimfire Exploration Report March Quarter 2009, pages 4~5](#)

Appendix 1

Sorpresa Soil Sampling - Gold Assays with Contour Interpolation

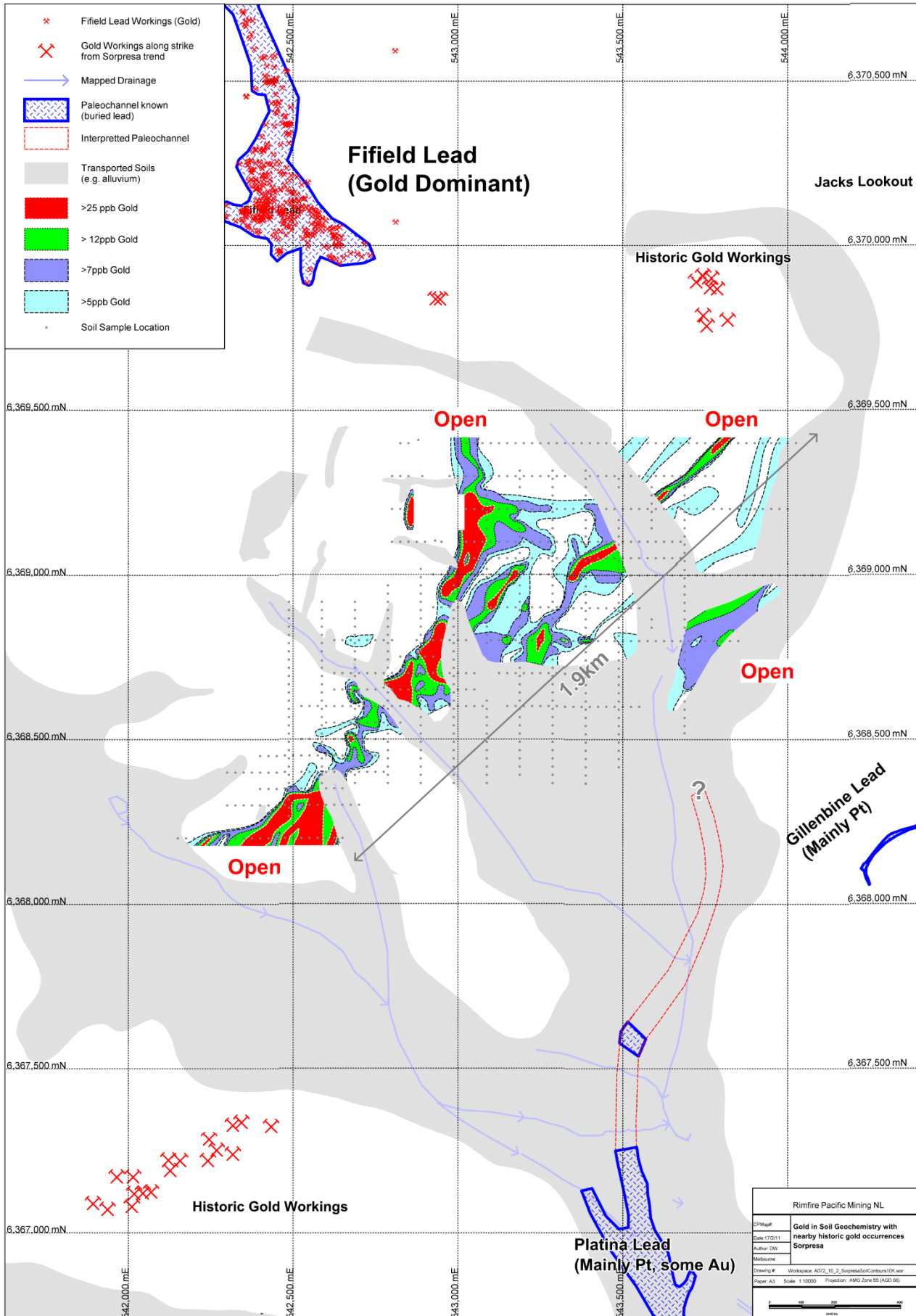
(Combined Soil Line Data for North-South and East-West Orientations)

Assays were carried out by independent laboratory, ALS Laboratories, using standard Fire Assay Methods for Gold, namely Au-AA22 (for Au values below 1g/t) and Au-AA26 (for Au values above 1g/t). The sample charge size for assay was 50g. Location details for samples are shown below with values.



Appendix 2

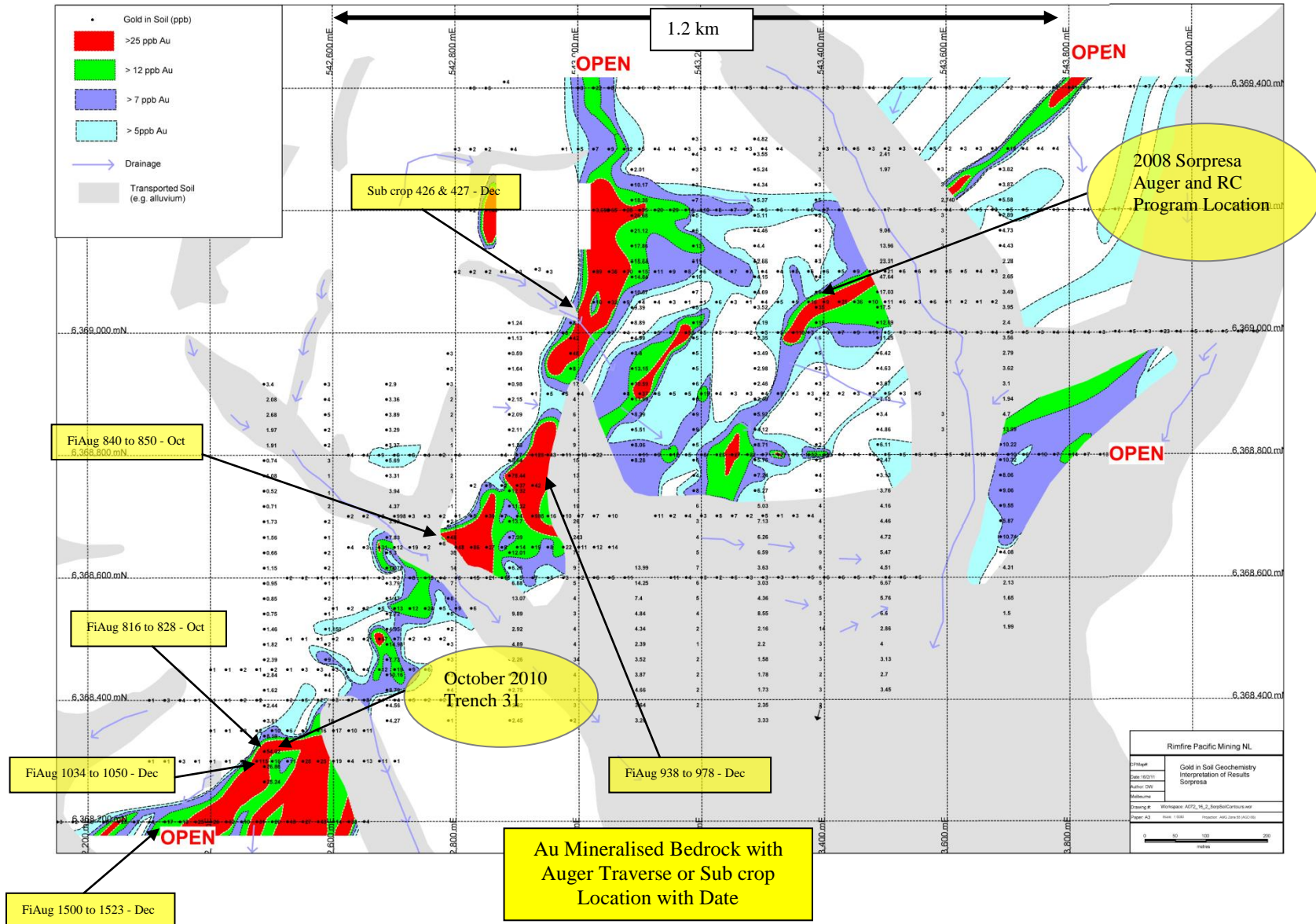
Sorpresa Gold in Soil Anomaly in a wider Context – Untested Areas and Adjacent Historic Workings



APPENDIX 3

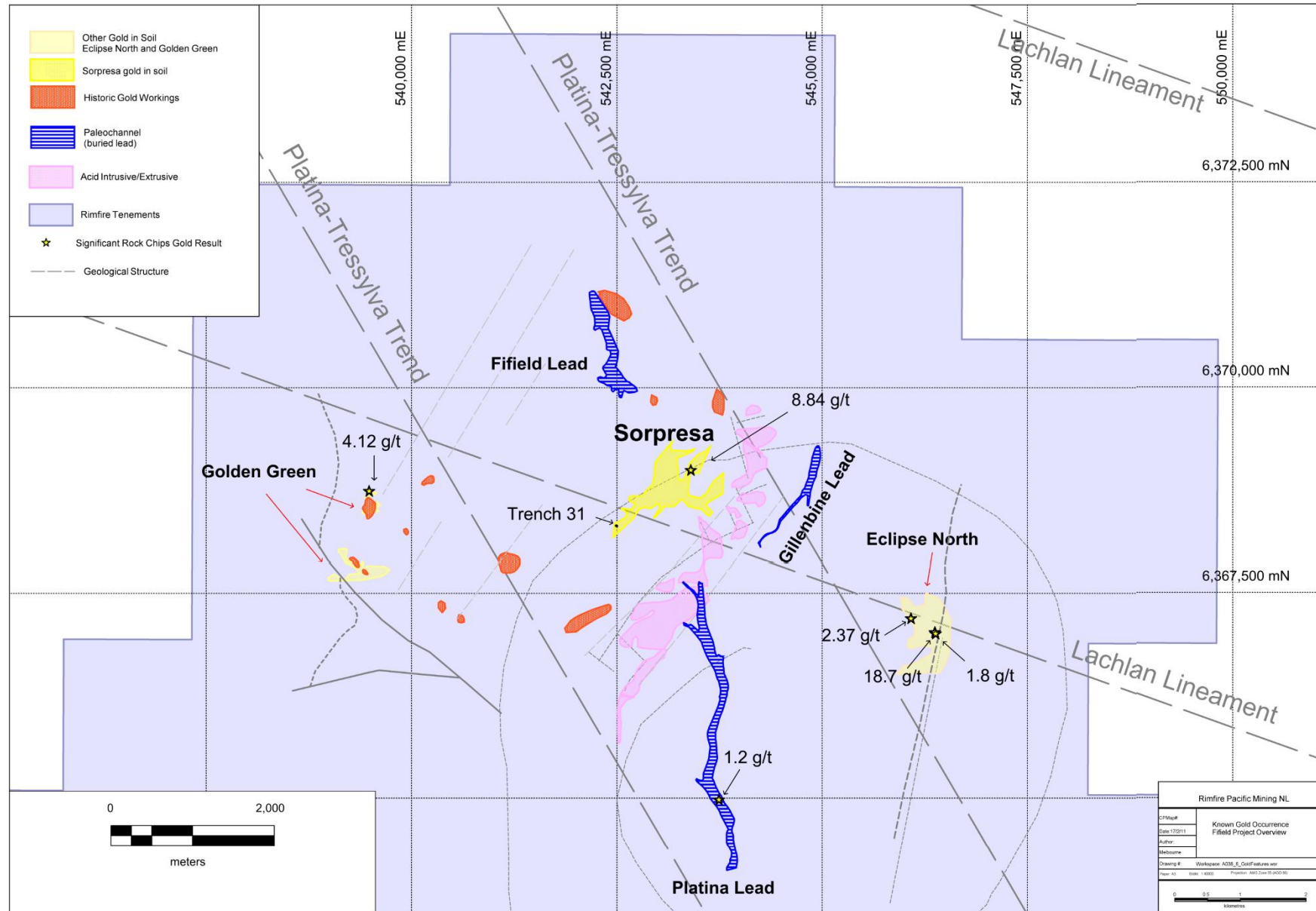
The Sorpresa Area Anomalous Gold Zone

(Soil Geochemistry Contour with Bedrock Au Mineralisation Exploration Shown)



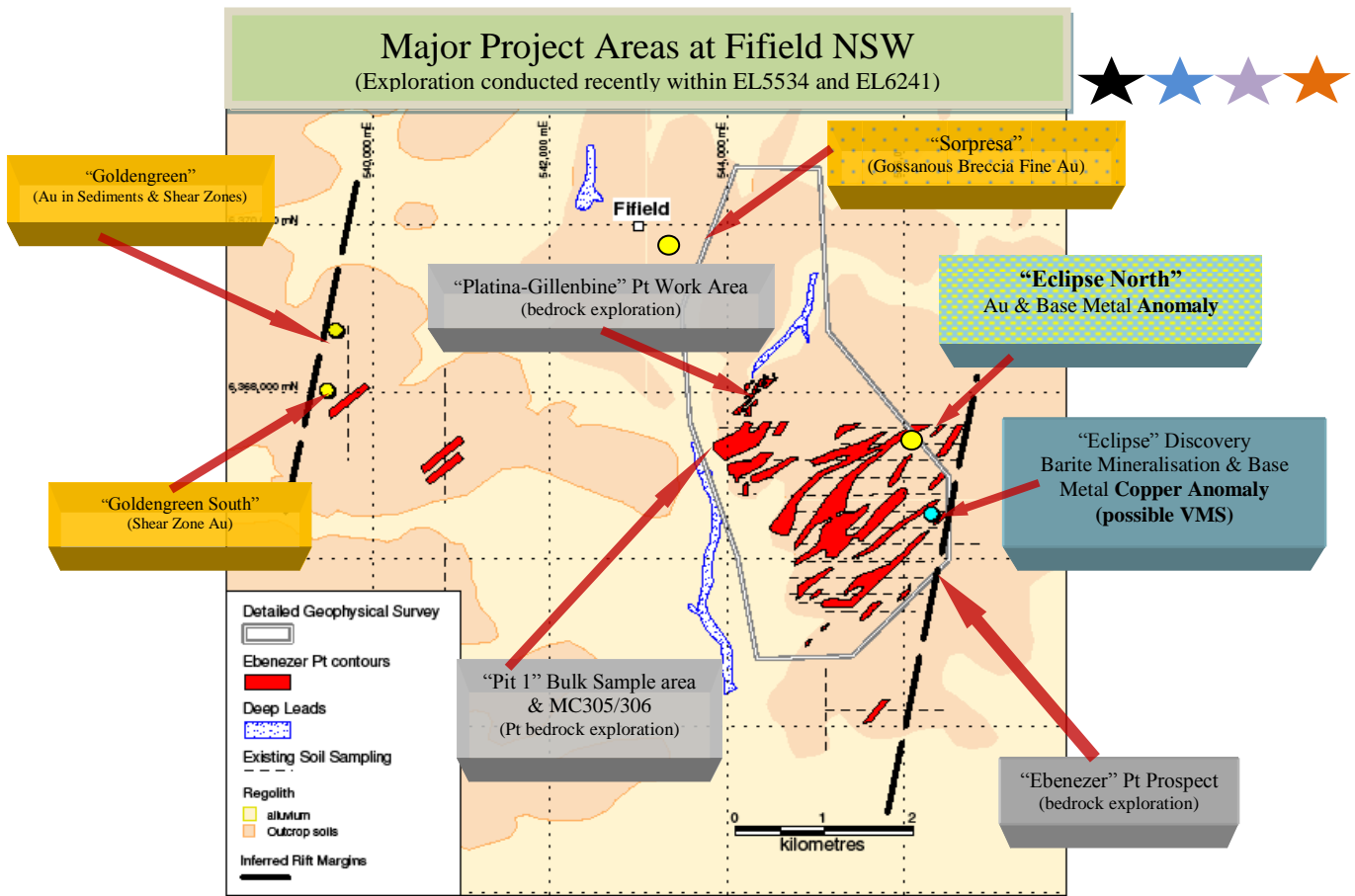
APPENDIX 4

The Sorpresa Area Anomalous Gold Zone – within the wider Fifield Gold Observations

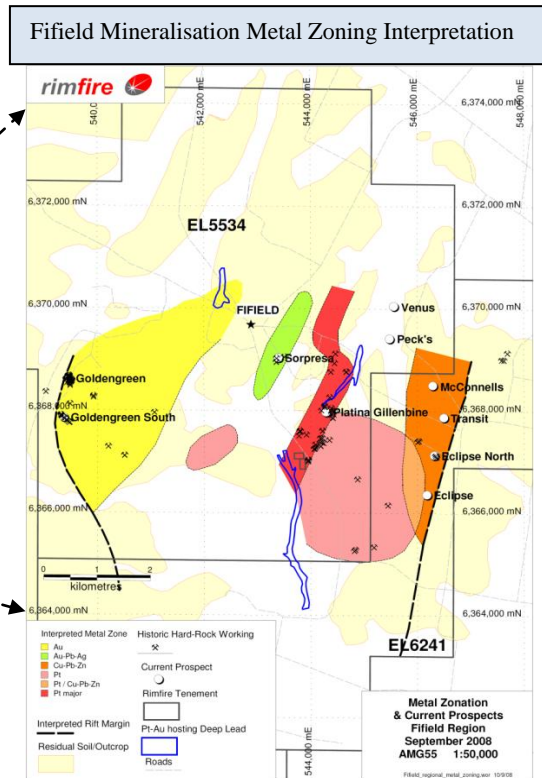
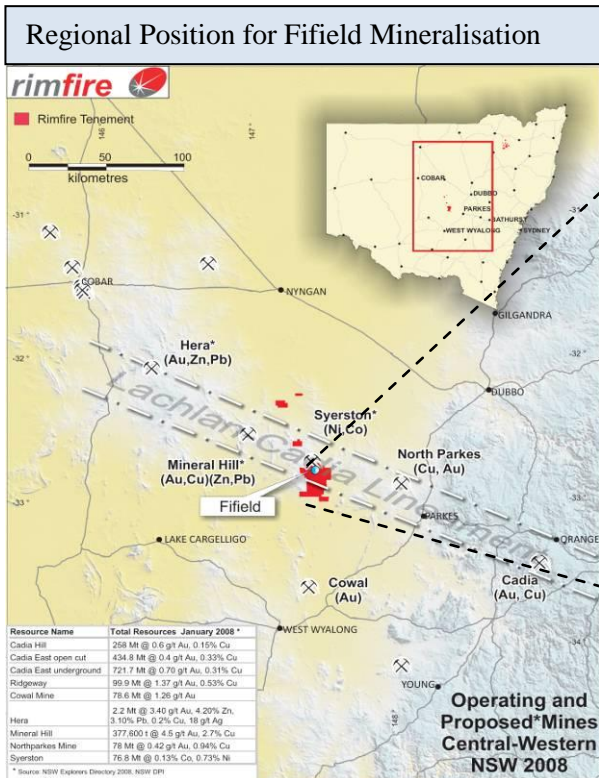


Appendix 5

Project Areas Fifield NSW and Metal Zoning Interpretations



★ Bulk sampling ★ Auger drilling ★ Trenching ★ Mapping ★ Assays



Appendix 6

Project and Mineralisation Background – Fifield NSW

The systematic exploration by Rimfire within the immediate Fifield region has continued to develop a wide variety of mineralised prospects. Each prospect has a strong geochemical surface expression, a highly relevant geological context and favourable development criteria.

There is a significant variation in mineralisation styles at Fifield, which includes Au, Pt and Cu/Base Metal prospects, with these occurring across a zone of less than 10km width. This observation also provides further support to the interpretation of the region as being a complex volcanic rift setting, with evidence for multiple, polymetallic mineralisation events associated with sub-volcanic intrusives, shearing and brecciation at various scales.

Accordingly, the exploration shows that metal zoning remains an important feature of the regional geology at Fifield. The under explored Fifield area represents an excellent exploration setting for discovery of commercial mineralisation in the Company's view (Appendix 4).

The major mineralisation target for exploration by the Company at Fifield remains focused on gravity recoverable coarse grain Platinum. The Platina-Gillenbine area is of particular importance in understanding and delineating the bedrock mineralisation.

A key feature of the exploration landscape at Fifield NSW is the minimal outcrop available for examination. However, in many instances the depth to bedrock is less than two metres, so a combination of soil geochemistry assays, auger drilling and trenching to bedrock with complementary bulk sampling is rapid and effective way to explore for significant mineralisation. These activities are also relatively low cost to undertake.

Historic Pt mining at Fifield yielded in excess of a reported 20,000 oz of Pt from the deep leads and surface soil mining (circa. 1890-1930). The major deep lead was the Platina Lead, worked at a depth from 12m to 25m over a length of 2.8km with a reported grade of approx. 15g/t gravity recovered Pt equivalent.

The northern extent of the Platina Lead was not able to be defined historically. This northern section represents an important component of the Pt bearing alluvial system, both with respect to its commercial potential and the exploration knowledge base the lead provides, in relation to the source area(s) for Pt entering the alluvial system along the full extent of the Platina Lead. *A further 500m of the Platina Lead has now been demonstrated to be present (2009), but this un-mined section has not yet been tested by the Company.*

The Company's key overall objective remains, "to establish a potential open cut minable resource(s) within the various project areas including the Sorpresa Gold area and also the 6km² zone of currently identified Pt mineralisation noted within the Platina-Gillenbine and Ebenezer project areas"¹⁰, which includes both alluvial targets and the greater bedrock system.

¹⁰ Appendix 5 for details of locations