



21<sup>st</sup> April 2009

Company Announcement Office  
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## QUARTERLY EXPLORATION REPORT

(For the period January 1<sup>st</sup> to March 31<sup>st</sup> 2009)

The dominant exploration focus for the period was the commencement of bulk sampling for coarse grain Platinum (Pt) and Gold (Au) within the Pit One area on the Company freehold at Fifield, NSW.



Loading the gravity plant with trial gravels and examining the precious metal concentrates to tune processing requirements

### **HIGHLIGHTS FOR THE QUARTER - FIFIELD NSW**

***Bulk sampling and trial mining on the Company freehold (Pit One area, including MC306) commenced.***

- Plant processing trials of the various Pt bearing materials occurred, including two distinct gravel systems.
  - Pit One area currently covers an area of 70m x 55m
  - 1,000mt of barren overburden has been removed ( an average depth of 0.7m), exposing well sorted Pt bearing gravels
  - ***To date 700mt of mixed origin gravel material has been excavated, of which 400mt of gravel has been processed to a heavy mineral concentrate stage. Coarse Pt and Au grains are being recovered.***
  - Bedrock exposures have been created over an area of 17m x 53m ***to examine mineralised veins for bedrock sourced Pt.***
- The gravity plant was further modified to improve recoveries, lift production and meet compliance needs.
- ***It is anticipated that a further 2~3,000mt of various materials will be processed in the next quarter and grade assessments made.***
- ***Auger drilling will be used to delineate the full extent of the gravel system on the Company freehold.***
- ***A key goal of the Company “to assess the possibility of this phase of the exploration work as providing a commercial return” is now well underway.***

***Other highlights in the March quarter saw a range of activities undertaken by the Company as follows:***

- ***A major auger drill geochemistry grid was completed over the Sorpresa Au and Base Metal area.***
  - The previously identified Au and Pb anomaly at Sorpresa (approx. 100m x 120m) was further examined with an extensive auger drilling program (60 holes) into the underlying bedrock.

- *Au and base metal anomalism consistent with the potential for a mineralised lode was encountered, reinforcing the 2008 RC programs and the soil anomalism already seen.*
- ***A review of historic work at the KARS Pt area was completed – coarse grain Pt was recovered***
  - Sections of earlier RC drill cuttings (Circa. 2002) were re-examined for coarse grain Pt, not previously researched. The new work indicates the presence of coarse grain material at KARS in these drill cuttings, alongside “fine grain assayable Pt”.

**Bulk Sampling in the Pit One Area and MC305/306 Area**

Pit One has coarse Pt and Au in a horizontal near surface gravel layer. This gravel layer in turn, has an underlying bedrock system with coarse grain Pt and Au present in veins. Mapping and bulk testing this bedrock requires that a large “plan view exposure” be created.

*The objectives of this bulk sampling program are:*

- 1. Mapping and sampling large sections of the veined bedrock to yield Pt and Au bedrock grades on a large scale.***
- 2. To generate a positive cash return for the Company by recovering Pt and Au from the overlying gravel above the bedrock.***
- 3. Upgrading the plant and operating skills required to enable the sampling of the extensive gravel on the company’s freehold property.***

The gravity separation plant used to recover coarse Pt and Au at Fifield has been substantially improved to meet compliance standards, improve recoveries and lift throughput. The Pt and Au bearing gravel is being processed in the plant at a rate varying from 9 to 15 tonnes per operating hour (depending on clay content).

In the early stages of evaluation of the Pit One area, trial mining shows that the upper gravel is part of the broad sheet *Ice Age period*, high run-off gravel. The Pt/Au grains are reasonably rounded, indicating travel of a few hundred metres or more.

The gradient of this gravel is slight (40cm in 100m), and is the same gradient as the current land surface drainage. A probable wide channel with a braided pattern characterises this gravel, and much of the gravel appears undisturbed, although evidence of spotted historic mining exists on the more easterly margins. The bedrock contact should provide the best Pt/Au grade, but this is not yet assessed.

Below this gravel there are complex remnants of former older land surfaces, including the previously encountered high clay “*debris flow layer*”.

In Tr24, at the west end, a lower gravel system (0.5m deeper than the *Ice Age* gravel system) was encountered. It is distinct from the other gravel, a likely narrow system of steeper gradient and contains “low to no travel” Pt grains, by comparison. Pt appears concentrated on the bedrock contact.

Three new gravel delineating trenches (A, B, C, combined dimensions of approx. total length of 130m x 0.5m

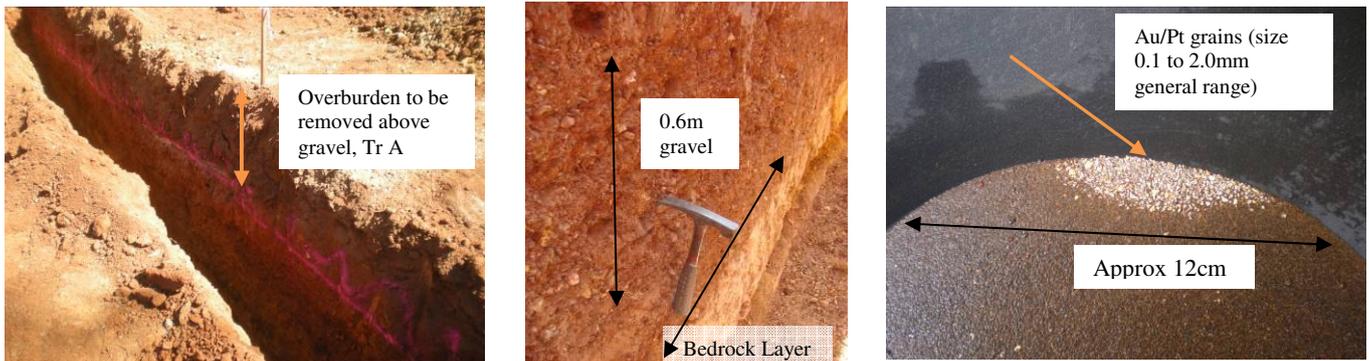


Excavation works commenced on Pit One and MC306, with gravel layers mined, stockpiled and processing underway. The bedrock is now revealed in parts. 15m x 50m sections are planned using trenches as orientation tools for depth to gravel and bedrock.

width x 2m depth) were placed within the identified target areas of Pt bearing gravels and Pt bearing “bedrock mineralised veins” suited for bulk testing.

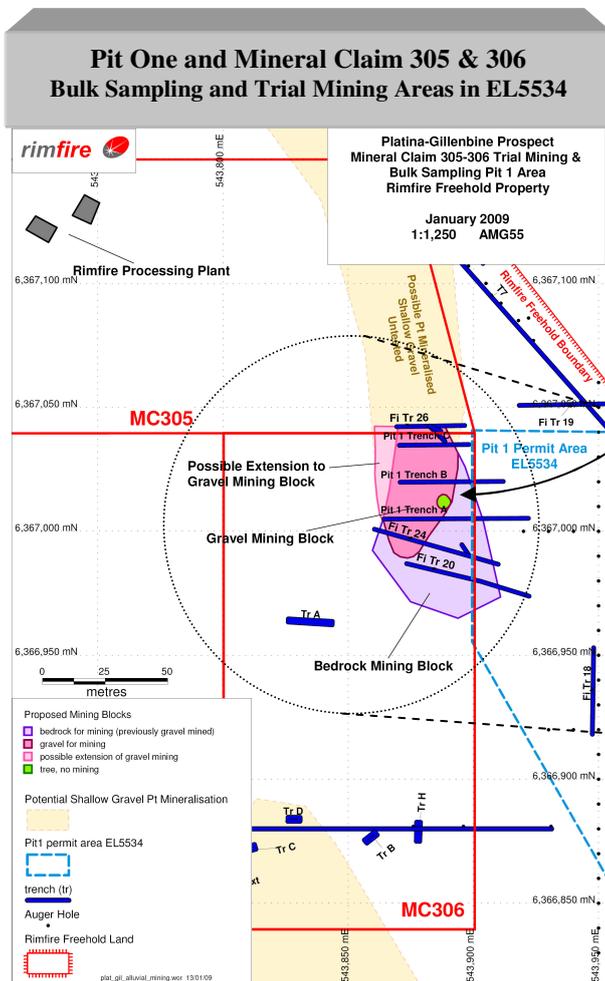
The upper gravel is approx. 0.6m thick in limited exposures seen in trenches. The overburden has been removed (approx. 0.7m) in significant sections. Additional reconnaissance auger programs will be undertaken to delineate the gravel system further north and south.

As already stated, the underlying gravel is being trial mined, then the bedrock will be cleaned off over the entire area, mapped and sampled. The bedrock will in due course also be tested with layered exposures created in “plan view” to highlight the Pt bearing mineralised veins, adjacent to and beneath the gravel system.



*Tr A within Pit One intersected gravel, which has been processed and is yielding Au/Pt grains (no quantitative grade yet established)*

In order to establish a clear quantitative grade, the plant needs to undergo a thorough clean out, recovering all precious metal concentrate. At the early state of processing, the Company is focussing on plant performance, and material selection prior to extended trials for grade assessment. Nevertheless, the results are broadly positive in the Company’s opinion, with Pt/Au recovery being evident from gravels processed to date.



*Three Trenches(A, B, C) added and bulk sampling commenced*

*Mineralised veins were seen in Trench 20, 24, 24a, 26 in the vicinity of Pit One Area and MC 305 & 306. A new gravel system was also encountered.*

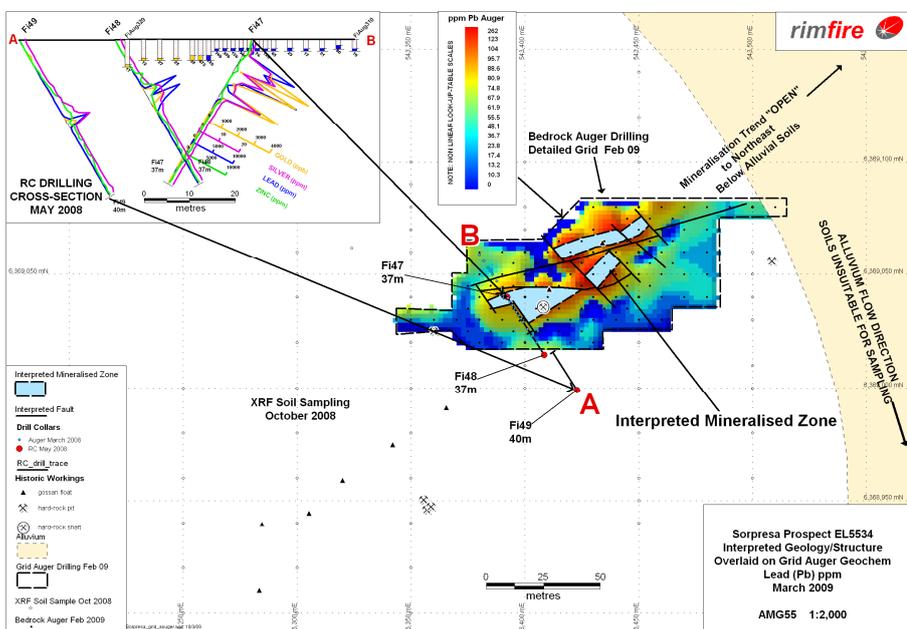
## EXPLORATION SUMMARY FOR OTHER AREAS AT FIFIELD IN THE QUARTER

- At the “Sorpresa” prospect, a detailed auger drilling grid was completed over the newly defined anomaly in the first quarter 2009, comprising approximately 60 holes to determine the bedrock geochemistry. Independent assay laboratory <sup>1</sup> for Au, Pb, Cu, and Zn re-confirms the prospective nature of a discrete geochemical anomaly already identified, possibly representative of a “breccia mineralised pipe-like body”, of the order 120m x 100m.
- The Company also examined EL7233, within the Fifield district, with surface mapping and a ground based geophysical survey, in an orientation survey.
- Rock chip samples at the “Eclipse North” project have been organized and selected for Au assay. These new samples were taken in the vicinity of the previously assayed rock chip, yielding 18g/t <sup>2</sup>.
  - Eclipse North represents a good prospect, given the positive surface indications, ease of exploration, partly mappable geology, reasonable exposed gossan width (20~30m), evidence for significant sulphide veins and significant quartz veining present.
- “KARS” Pt prospect historic RC drill cuttings (2002) were examined, and recovered coarse grain metal, believed to be Pt, not previously seen.

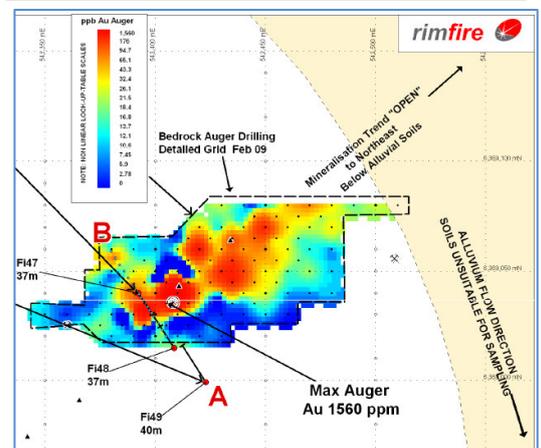
### “Sorpresa” Prospect – Possible Mineralised Breccia Pipe target developed from Pb Geochemistry

The trend of the mineralisation as defined from the recent auger drilling appears to be north-east, in good agreement with historic observations and the previously mapped surface gossanous float.

“Plan View” Sorpresa Pb Geochemical Auger drill bedrock Anomaly and Interpreted Mineralised Structure March 2009 (RC Section 2008 shown also)



Sorpresa Au Geochemical Auger drill bedrock Anomaly March 2009



There appears to be depletion (but not dispersion) of Au within the upper bedrock zone. Bedrock auger values in mineralised zone (max 1g/t) are considerably weaker than shallow RC drilling results in the mineralised zone (max 5g/t). The gold appears to be fine and readily extracted by cyanide leach which offers a distinct metallurgical advantage.

<sup>1</sup> Ultratrace Laboratories WA, using aqua regia acid digest and ICP finish, methods AR001, AR101

<sup>2</sup> ASX announcement [http://www.rimfire.com.au/PDF/Exploration\\_Update\\_at\\_Fifield\\_NSW\\_10\\_Sep\\_08.pdf](http://www.rimfire.com.au/PDF/Exploration_Update_at_Fifield_NSW_10_Sep_08.pdf)

XRF soil sampling appears to offer an accurate tool to define surface anomalism of base metal mineralisation, particularly with immobile elements such as Pb in the semi residual soils. The Zn shows displacement to the southeast consistent with Zn's greater mobility.

The Company would plan to place 4 deep auger holes to better determine Au grade at depth, as there appears to be "Au depletion in the near surface". In addition, 20 extra shallow auger holes would help explore the immediate surrounds to Sorpresa, in places of higher alluvium and where these soils are not a reliable indicator of the bedrock.

The significant depth of the historic 1950's shaft (25m) at Sorpresa strongly suggests a sub-vertical orientation to the lode. This now appears much more likely than a shallow south-east dip (see RC X-sections), however, dip will still take time to sort out.

The Company believes that this style of mineralisation is not likely to occur in isolation, so additional targets of similar type could be in the vicinity. The Sorpresa Au project continues to demonstrate encouraging signs in the work programs undertaken to date.

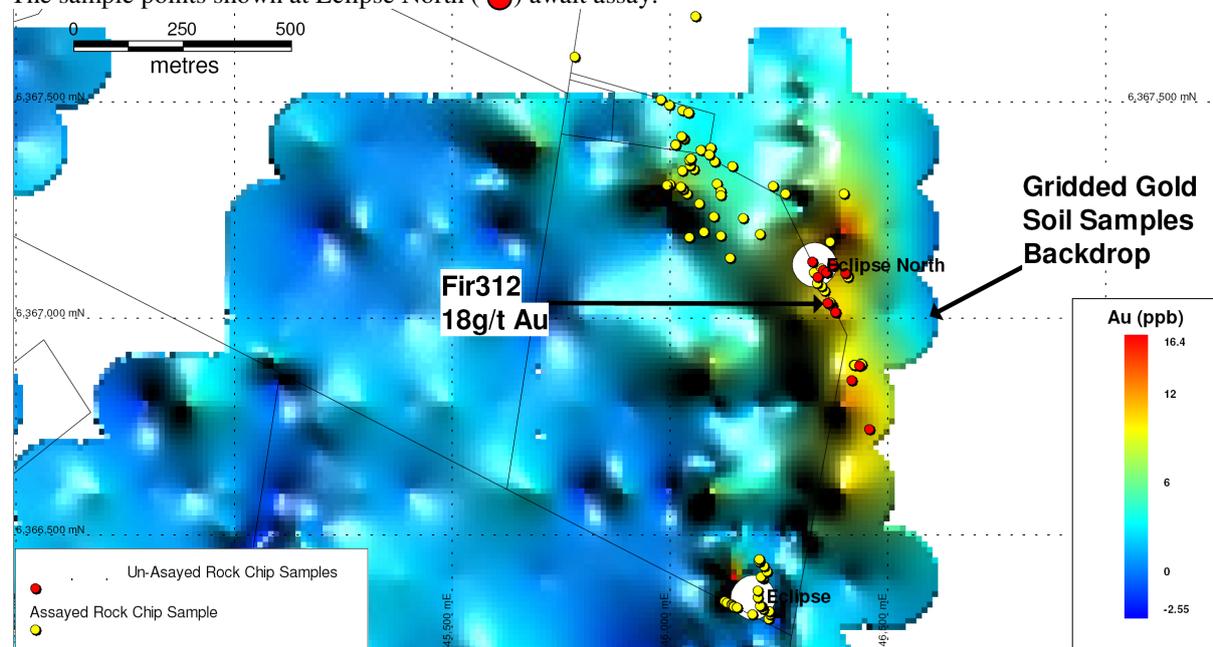
### Eclipse North Rock Chip Area

The area has a significant, albeit subtle, gold soil anomaly. The rock chip samples combined with mapping results showing the presence of a significant surface gossan zone suggest that this area would be relatively simple to evaluate given that the mineralisation is at surface, and therefore well worth doing.

In October/November, the Company used the field based XRF to map base metals more extensively in this area, and also further to the North. Apart from this base metal work, no further analysis of the gold has been undertaken yet.

However, given the proximal positive result for a previous Au assay, the scale of the gossanous zone (possibly 20-30m wide), and the view of sectioned rocks showing good stockwork and gossan textures, the Company considers processing the new rock chips for further Au analysis as worthwhile. There appears to have been no previous exploration of this prospect historically by others.

The sample points shown at Eclipse North (●) await assay.



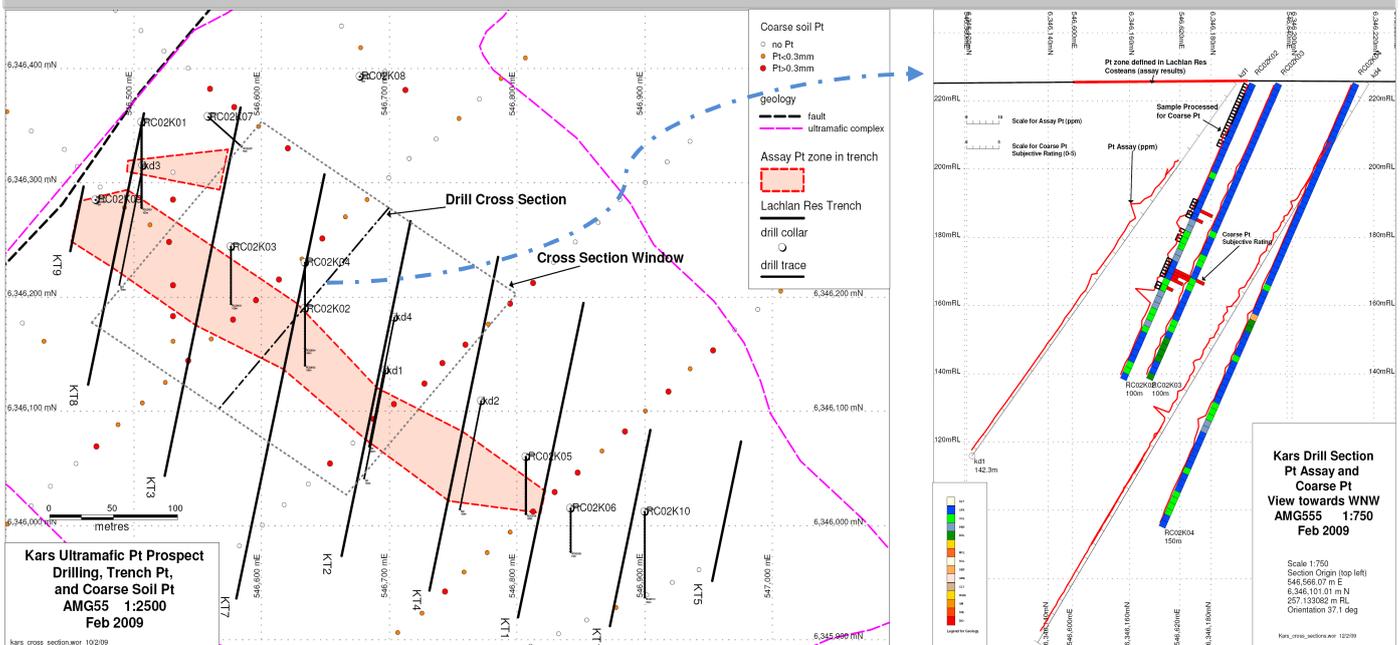
## “KARS” Prospect Fifield NSW – EL5565

The Company gravity recovered what “appears to be” coarse Pt grains from old RC drill cuttings and these grains are considered interesting. Firstly, no such previous examination for coarse Pt grains has occurred in drill cuttings at KARS, so this is a new insight. Secondly, most Pt grains were fairly typical of those already seen by the Company at Kars (i.e. dirty, irregular, primary grains, different to those at Platina-Gillenbine), however, a two metre interval (RC02K02 62-64m, 0.29ppm Pt, historic fire assay) had numerous **tiny wire like grains**, approx 100 in one sample (22.2kgs size), approx 50 in the next sample (21.3kgs size), however no grade attribution is possible, and further work is considered necessary to be conclusive.

The morphology of these wire grains was very distinctive, which is suggestive of a separate mineralised horizon. Confirmation is still required that these wire like grains are also Pt, but field review does suggest that the grains are genuine. In addition, there is also the possibility that coarse crystalline Pt grains are present.

The Company believes it is likely that the historic Pt assays on drill cuttings at KARS understate the contained Pt, due to the presence of coarse grain Pt, not being captured in the earlier assays (so called nugget effect).

KARS data integrated, Rimfire course Pt in Soil 2007, RC program 2002 and Lachlan Resources Data 1990’s (trench and DDH)  
(Coarse Pt seen in Rimfire’s re-evaluation, in soils and RC cuttings, not previously noted by others)



## SUMMARY EXPLORATION PLANNED AT FIFIELD FOR THE JUNE QUARTER 2009

In the June quarter 2009, the Company intends to perform the following activities at Fifield:

- Continue significant bulk sampling and trial mining within the Pit One Area and including the MC306 area aiming at 2,000 to 3,000mt of processed material in the period
- Estimation of Pt grade on the including part of the gravel system and some of the bedrock
- Place additional trenches as required at the Pit One area, to assist geology orientation and mining blocks
- Use of gridded auger drilling to help delineate extensions in Pt bearing gravel areas prospective for mining
- Continue to process historic samples in the Company sample data bank, as appropriate

## Project and Mineralisation Background – Fifield NSW

The systematic exploration by Rimfire within the immediate Fifield region has continued to develop a wide variety of mineralisation prospects. Each prospect has a strong 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. 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 commercial mineralisation discovery in the Company's view (Appendix 1).*

*The major mineralisation target for exploration by the Company at Fifield remains focused on coarse grain Platinum. The Platina-Gillenbine area is of particular importance in understanding the bedrock mineralisation (Appendix 2).*

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, auger drilling and trenching to bedrock is an ideal way to prospect for the evidence of significant mineralisation in most instances. 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. 1900–1930). The soil mining activity has disturbed the most exposed areas of the land surface, thus requiring a customized soil sampling technique in many instances. The large scale of the Pt mineralisation at Fifield has meant that the Company has needed considerable near surface sample processing to define representative areas of bedrock Pt.

## COMMODITY PRICING FOR THE MARCH 2009 QUARTER

The price of Platinum was again lower in the period, but was trading in a higher range generally of approximately USD1,050–USD1,150 per ounce ([www.kitco.com](http://www.kitco.com)). At the time of this report the price had improved to USD1203 per ounce (NY Close 14<sup>th</sup> April). In Australian Dollar terms Platinum was trading higher at AUD1650 per ounce level, as at 2<sup>nd</sup> April 2009.



## CORPORATE ACTIVITIES

### Tenement Position

The Company is awaiting renewal of EL5534 and EL5565 at Fifield NSW.

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

As at 31<sup>st</sup> March 2009 the Company had approximately \$1.593 million in cash.

### **Issued Capital**

The issued capital at the close of business at 31<sup>st</sup> March 2009 was unchanged:

311,976,107 ordinary shares; 7,500,000 unlisted call options ex @ \$0.12 expiring 30<sup>th</sup> September 2010



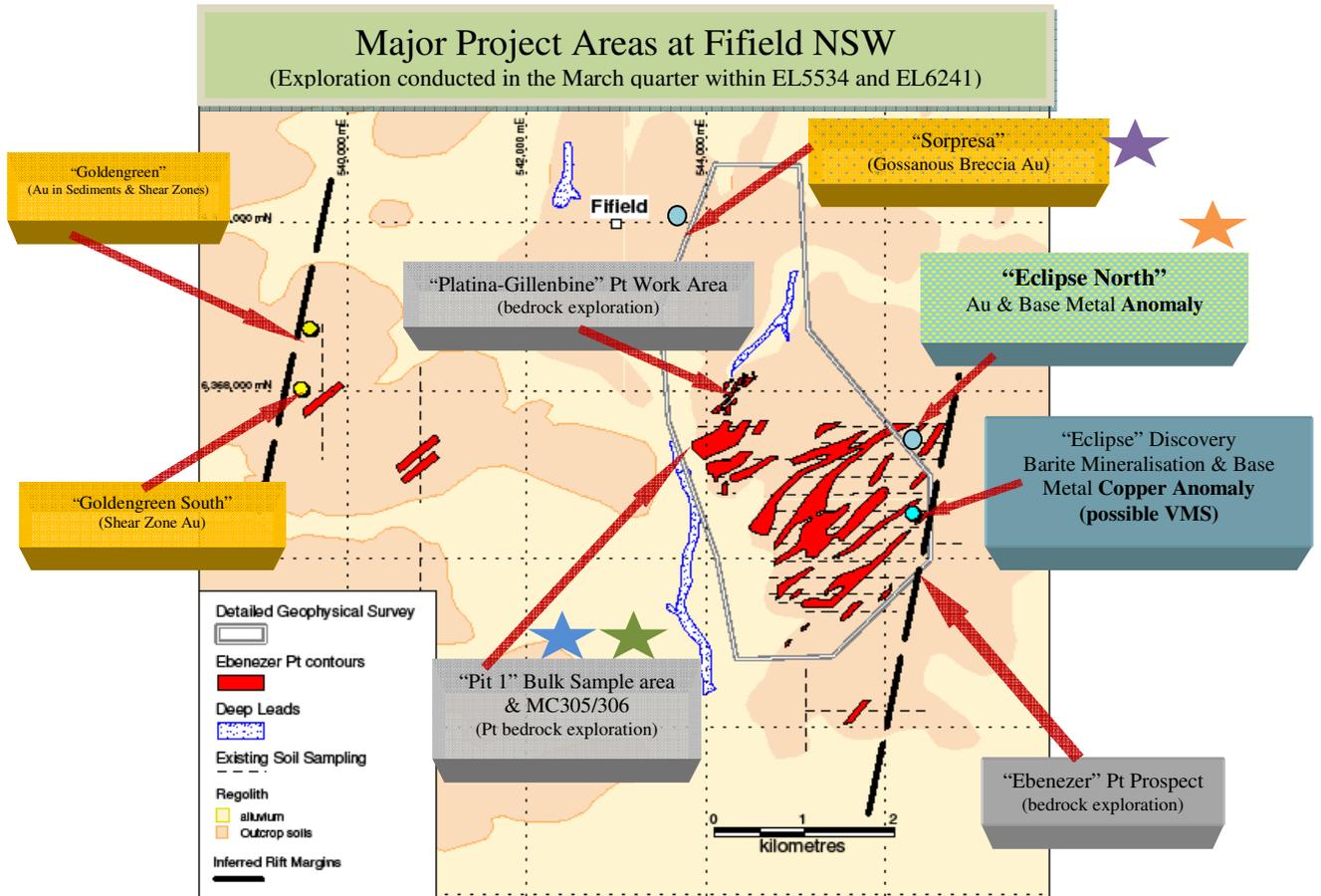
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**JOHN KAMINSKY**  
**Chairman**

*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, with over 30 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. Mr Plumridge 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 "Australian Code for Reporting of Mineral Resources and Ore reserves". Mr Plumridge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

# APPENDIX 1

## – Project Areas Fifield NSW and Metal Zoning Interpretations

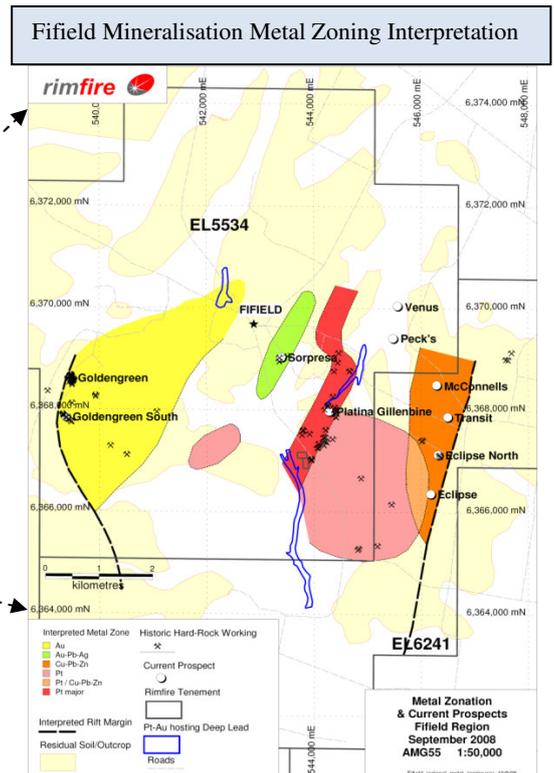
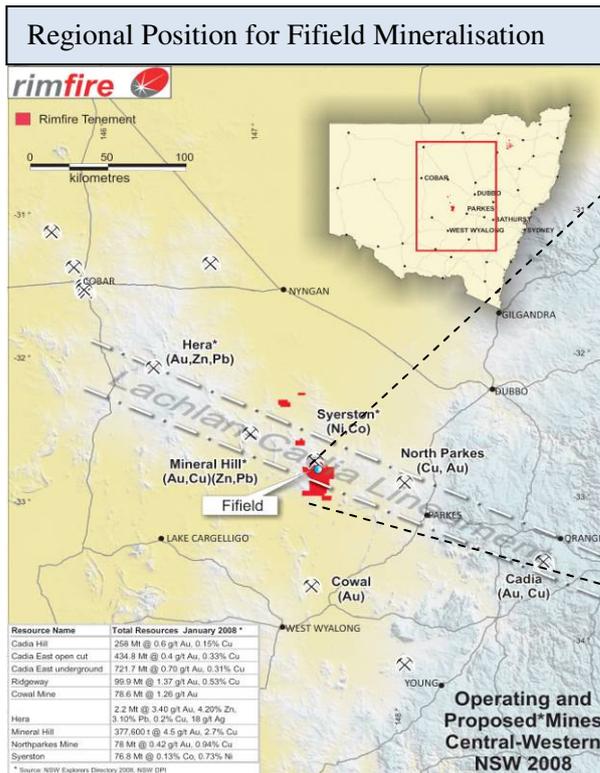


★ Auger Drilling and Soil sampling

★ Rock Chip program and Soil Sampling

★ Trenching

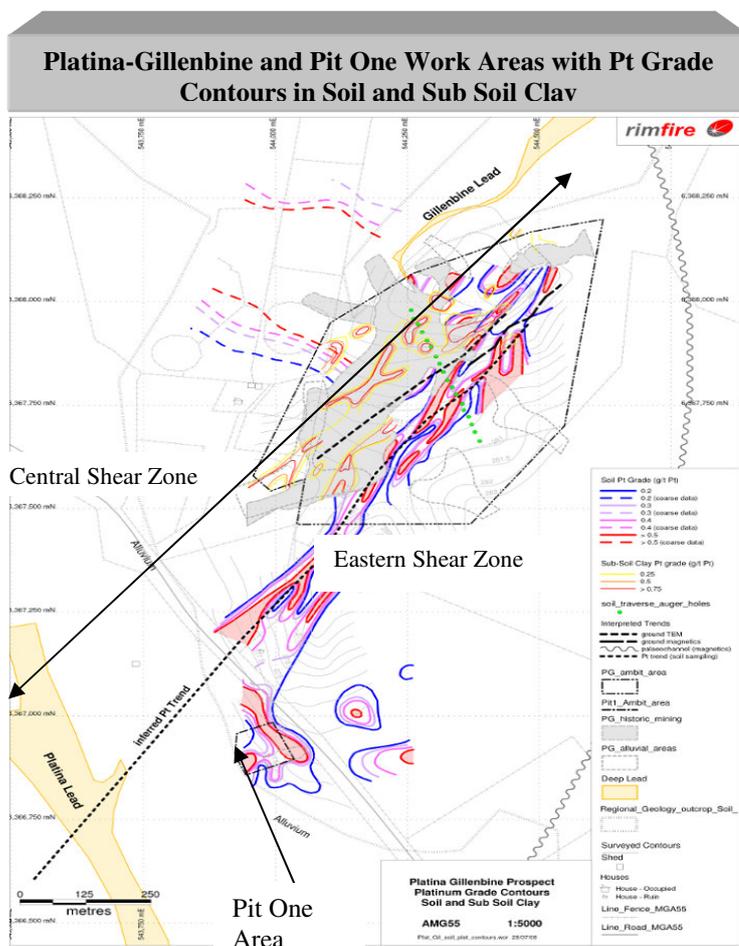
★ Bulk sampling



**Metal Zonation & Current Prospects**  
 Fifield Region  
 September 2008  
 AMG55 1:50,000

## APPENDIX 2

### Platinum Exploration Program – Background to Bulk Sampling of Bedrock on Company Freehold



The “*Eastern Shear Zone*” Pt surface anomaly was established <sup>3</sup> as a *continuous feature over a strike length of 1,000m*. It extends into the Company owned freehold land area. The Pt contours within the residual soil are parallel in orientation with the subsoil Pt anomaly at Platina-Gillenbine, now named the “*Central Shear Zone*” (which was defined in 2006 <sup>4</sup>).

The “*Pit One*” sampling area appears geologically influenced by the Eastern Shear Zone. Accordingly, the Pit One area is being extensively evaluated with auger drilling and trenching for the significance and orientation of the Pt position in the bedrock at this location.

#### Background on Geological context and importance of Pit One Area and Bulk Testing Phase

*Within early October, the Company had made a significant discovery concerning the geological control of the Pt mineralizing system at Fifield, on its freehold.*

The intersection of complex, clearly identifiable vein structures, containing Pt, Au and a key pathfinder element Chromite (Cr) occurred in Trenches 20, 24 and 24a *and this was extended in the period with observation in Tr26 and Tr26a.*



*Base of Trench 24a Showing Pt bearing veins*



*Part of wall section Tr26 with vein exposed*

The Company believes that this could be representative of the entire mineralised Pt system observed at Fifield within the Platina-Gillenbine and Ebenezer project areas<sup>5</sup> and is an important milestone with respect to Pt exploration at Fifield. “Pit One” is considered an important area, linking the shear zone system, at Platina-Gillenbine to the gradation of the near surface bedrock position to the alluvium covered valley containing the Platina Deep Lead system, historically mined 100 years ago.

<sup>3</sup> ASX Announcement 16-10-2008 link <http://www.rimfire.com.au/PDF/KeyGeologicalControlDiscoveredforPlatinum.pdf>

<sup>4</sup> ASX Announcement 13-12-2006 link [http://www.rimfire.com.au/PDF/Pt%20Update%2013\\_12\\_2006%20Final%20ASX.pdf](http://www.rimfire.com.au/PDF/Pt%20Update%2013_12_2006%20Final%20ASX.pdf)

<sup>5</sup> This combined area is approximately 6km<sup>2</sup> including Ebenezer and Platina-Gillenbine