



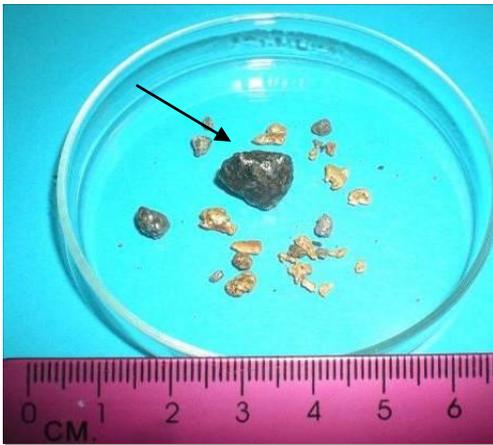
29<sup>th</sup> October 2009

Company Announcement Office  
Australian Securities Exchange

## QUARTERLY EXPLORATION REPORT

(For the period July 1<sup>st</sup> to September 30<sup>th</sup> 2009)

The focus of the exploration for the period continued to be the bulk sampling program designed to examine the mineralising system for coarse grained Platinum (Pt) and Gold (Au) within the Pit One area on the Company freehold at Fifield, NSW. The Company's key overall objective remains, "to try and establish a potential open cut minable resource within the 6km<sup>2</sup> zone of currently identified Pt mineralisation noted within the Platina-Gillenbine and Ebenezer project areas"<sup>1</sup>, which includes both alluvial targets and the greater bedrock system.



Large 7.4g Platinum Nugget from Block B in Pit One

The Pit One area has encouraged the Company to investigate the commercial potential on its freehold of the alluvial system, comprising the multilevel gravel system, un-mined portions of the historic Platina Deep Lead and the likelihood of Pt bearing tributaries feeding into the Platina Valley.

In the quarter, an initial auger drill grid was commenced over an area of 2km strike by 0.5km width (Appendix 1), and this activity has been supplemented with trenching to examine the intersected gravels and geology as appropriate, achieving encouraging results.

In addition, the Company embarked on significant mapping and exploration programs to help establish the extent of the historic Pt and Au drainage systems involved in the partially mined Deep Leads (Platina and Fifield Leads), extensive unmined gravels and possible tributaries to the Platina Lead, progressing towards commercial assessment of the various Pt and Au bearing systems.

Activities for the period at Pit One included excavation and processing of the gravel systems in newly mined blocks B and D, further exposure of the underlying bedrock and commissioning of additional plant improvements.

In the period, the Company achieved a modest cash flow from a refining trial of a portion of the Pt and Au concentrate recovered to date.

***The Company provides the following links for video of the auger drilling program and work site areas currently being delivered on its freehold. (click the title whilst viewing on your computer screen and connected to the internet)***



Pit One Area Blocks A to D Gravel Mined to bedrock

Video 1 [Update on Pit One Platinum Bulk Sampling Area Fifield NSW - Sept 2009](#) (click title)

Video 2 [Auger Drilling Program for Platinum, Deep Lead, Gravels, Tributaries at Fifield NSW – Sept 2009](#) (click title)

<sup>1</sup> Appendix 2 and Appendix 3 for details of locations

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

### **Highlights of the Current Work Program**

- **Four blocks are now exposed (blocks A, B, C and D), within Pit One area, where the Pt bearing gravel layer has been substantially removed, and processed through the gravity plant. The upper weathered bedrock floor is now exposed. (Appendix 3).**
  - In total within Pit One approx. 2,800 tonnes of gravel has been processed, producing approx. 4.5 tonnes of Pt-Au concentrate, (1.6% of feed) containing substantial ironstone impurities.
  - The bedrock floor will be excavated and processed to remove any remaining alluvial Pt and Au from the underlying traps and crevices occurring on the gravel/bedrock contact.
  - The bedrock will be excavated in sections and examined for Pt and Au in the primary bedrock positions.
- **Revenue of approx. \$12,000 was received for refining 394g of high value concentrate (HVC) of Pt & Au**
  - Two refining methods were trialed and recovered in aggregate 196g Pt and 42g Au, but the company feels that the refining process is yet to be optimized
  - Further quantities of Pt-Au concentrate (-3mm) is stockpiled for upgrading to Pt-Au HVC
  - Many larger Pt grains have been retained for further examination and further HVC is also awaiting refining
- **The largest Pt Nugget to date recovered by the Company is 7.4g from Block B in Pit One**
  - The nugget has irregular dimensions of approx 12 mm x 10 mm x 10 mm
- **Extensive assessment of alluvial system on the Company freehold has commenced**
  - Auger drilling is well underway (58 holes into gravel, refer to attached map Appendix 1) to delineate the full extent of the gravel systems on the Company freehold on a strike of over 2km and an average width of 450m. The program is designed to define potential gravel volumes and allow for planning of bulk sampling to test Pt and Au grade.



Auger hole 619 intersected Pt-Au bearing gravel on the western side of the Platina Lead. Trenching indicates a 4.5m section of gravel to be bulk tested for Pt content.

- Important conclusions to date include:
  - An intersection of the “lost Northern extent of the Platina Lead” 900m beyond known historic workings was drilled, in hole 601.
  - New gravels of varying thickness and ages have been intersected and sampled. Some have been found to contain Pt-Au while others remain to be tested.

- Delineation of tributaries to ancient water courses previously unseen and potentially Pt bearing, entering the Platina Valley System is in progress and will increase the total potential alluvial resources and also possibly indicate the locations of new hard rock Pt source areas.
- Faults and intrusive dykes in the bedrock system underlying parts of the previous alluvial systems are being found which may be associated with the Pt source rocks.

➤ **Detailed mapping of the Fifield Lead and extending to the north end of the Platina Lead**

- Over 1,500 historic workings were newly documented with the Fifield Lead is in excess of 1200 metres in length with historic bedrock mining noted in a number of areas along the lead margins
- Design of bulk sampling programs to test the open cut potential of the leads and the gravel will follow

➤ **Petrological examination was undertaken on a range of materials recovered from the plant including rock, mineral and metal grain samples, including important composite materials.**

- Conclusions on the petrology, confirm many earlier findings and extend the knowledge at Fifield
- Additional petrology is underway on various samples designed to establish more information on Pt grain chemistry and potential source area mineral zoning.

➤ **The Sorpresa Gold and Base Metal Prospect Target size potential is considered larger than originally thought**

- After reviewing the geochemistry and geophysical data, the target size of the Sorpresa mineralisation has been reviewed and is considered to have potential to be a substantially larger target
- The Sorpresa system mineralisation is not fully understood but lies adjacent to a weak magnetic high which is within a low grade metamorphic aureole contained in a broader magnetic anomaly with an extent of approx. 1.1km x 0.5km. Intrusive porphyry associated with the metamorphic aureole has been identified in the field and through external petrology and suggests that an underlying intrusive body may be responsible for broader scale mineralization in the Sorpresa region.
- More broad scale soil geochemistry to define the full extent of gold and base metal anomalies with a possible IP survey being considered prior to further RC drilling

➤ **The work site, gravity plant and concentrate circuit performance were upgraded further.**

- The new hopper capacity (>40t) was commissioned and has greatly improved site management and logistics of gravel processing
- Plant reliability is being steadily improved and the addition of an in line magnetic separator was completed
- Drainage contours for improved water catchment were upgraded. However, water levels have not recovered in the surface dams due to lack of rainfall and the continued drought. This may affect processing of gravel, so this is a concern in the short term and may interrupt continuous operations of bulk sample processing



### **Progress on the Bulk Sampling program at Pit One**

During the period the Company completed the excavation of gravel from Blocks A, B, C and D. The Company encountered its largest Pt nugget to date during the work program, namely, a 7.4g piece from Block B.

The Company is aiming at the following qualitative and quantitative outcomes within Pit One area, as follows:

- Complete a determination of an approximate gravity recoverable grade for the Pt & Au within this particular section of the gravel system, but recognizing that alluvial gravel systems in general are likely to contain irregular grade.
- The contact position between the bedrock section and the gravel layer will be tested for alluvial Pt & Au trapped within crevices in this underlying bedrock position.
- Examine the underlying bedrock, for “in situ bedrock Pt, Au and indicator minerals or elements”.
  - The bedrock geology will be mapped in large “plan view” exposures and excavated in vertical sections for detailed sampling

In addition, investigation of important intrusive rocks located within the Pit One vicinity during auger traverses will be undertaken.

### **Alluvial System Delineation Plan on the Company Freehold of the Platina Valley, including the Platina Lead, Tributaries and Multi-layered Gravels**

The Company is conducting an extensive auger drilling campaign on its freehold, identifying the Pt and Au bearing gravel systems, including tributaries to the Platina Valley including the northern extension of the historic Platina Deep Lead<sup>2</sup>. Important aspects of the program include:



*Auger drilling to determine gravel locations, thickness and the bedrock valley floor with possible tributaries to the historic Platina Deep Lead.*

- An area of approx. 2km x 450m is believed to hold Pt bearing gravel worthy of assessment
- 85 auger holes were originally planned, to depths of 3m ~ 4 m, but the program is being increased due to the positive results being obtained, with holes going to greater depths as necessary. To date 58 holes have been completed on the Company freehold
- The program is designed to precisely map the outline of the various alluvial systems and indicate Pt and Au bearing potential
- The initial phase of the program should conclude within the next quarter

Assuming encouraging results in the program, then bulk sample trenches would be undertaken (100m to 200m spaced sections) to help provide input for a possible resource estimation of Pt and Au bearing gravels. This program would also provide valuable additional bedrock information to the Company.

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<sup>2</sup> Circa 1900 the reported recovered grade was approx. 15g/t recovered Pt in the Platina Deep Lead

## **EXPLORATION SUMMARY FOR OTHER AREAS IN THE QUARTER**

The dominant activities during the quarter were the continued bulk sampling of alluvial gravels, auger delineation of alluvial targets and mapping on the company freehold along with additional site improvements. A re-appraisal of the Sorpresa prospect was also undertaken, with some encouragement that the target mineralized system could be significantly larger than originally conceived.

The Ebenezer Pt prospect also had an additional 21 auger holes completed and these holes confirmed the residual nature of the soils in the location of that current drilling.

Selected samples from the garnet anomalism previously identified in late 2008 at the Trevallyn diamond prospect at Bingara NSW have been reviewed and polished thin sections of garnets has been made and will undergo micro probing to determine their chemistry shortly.

### **Sorpresa Area – Gold and Base Metal Target update**

The Sorpresa prospect consists of gold and base metals in soil anomaly located near an historic shaft. The prospect was drilled and a body of mineralization inferred from the analyses of the drill hole samples. The host to mineralization is a breccia with an uncertain size and orientation.

Recognition of the Sorpresa mineralization and old workings adjacent to and over a porphyritic intrusive within an extensive weak metamorphic aureole suggests further potential over a much larger area than previously sampled. Mineralisation is now identified over approximately 800 metres.

The intrusion is visible on the aeromagnetic data held by Rimfire and this will assist in defining further exploration areas. Following further soil sampling designed to complete coverage over the prospective area, a trial IP survey will be undertaken prior to a planned program of RC drilling.

## **SUMMARY EXPLORATION PLANNED AT FIFIELD FOR THE DECEMBER QUARTER 2009**

*In the December quarter 2009, the Company intends to continue to perform the following activities at Fifield:*

- Extend the bulk sampling and trial mining within the Pit One Area to include assessment of the bedrock
- Continue estimation of Pt grade of the alluvial gravel system and some of the bedrock
- Complete a gridded auger drilling campaign to help delineate extensions in Pt bearing gravel areas prospective for mining, delineate tributaries and commence the definition of the extension of the Platina Lead
- Apply extensive geochemistry to gold and platinum targets
- Investigate the Fifield Lead further with augering, bedrock geochemistry and probable bulk sampling
- Perform additional petrological studies to selected samples to enhance the genetic understanding of the origin of the platinum mineralisation observed

### **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 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 commercial mineralisation discovery in the Company's view (Appendix 2).*

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

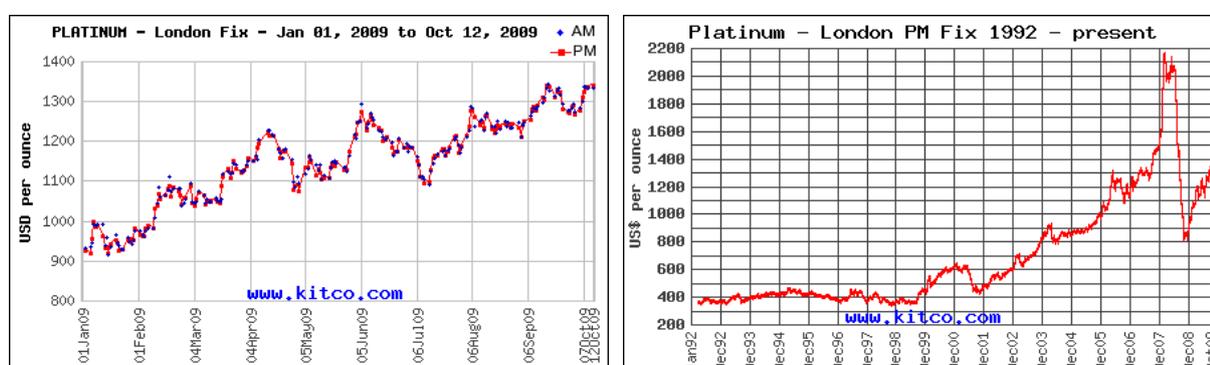
A key feature of the exploration landscape at Fifield NSW is the minimal outcrop available for examination. However, in many instances the depth to bedrock is less than two metres, so a combination of soil geochemistry, auger drilling and trenching to bedrock with complementary bulk sampling is rapid 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. 1900~1930). The major deep lead was the Platina Lead, worked at a depth from 12m to 25m over a length of 2.5km with a reported grade of approx. 15g/t recovered Pt.*

*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, with respect to the source area(s) for Pt entering the alluvial system along the full extent of the Platina Lead.*

## **COMMODITY PRICING FOR THE SEPTEMBER 2009 QUARTER**

The price of Platinum has maintained its recovery in the period, and was trading in a higher range generally of approximately USD1,100 ~ USD1,352 per ounce ([www.kitco.com](http://www.kitco.com)).



## **CORPORATE ACTIVITIES**

### **Tenement Position**

For its diamond projects at Bingara NSW, the Company has applied for renewal of tenements EL6106, EL5880, EL6893 and EL6894, whilst EL6892 has been relinquished. At Fifield NSW, tenement EL6144 has been applied for a renewal.

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

As at 30<sup>th</sup> September 2009 the Company had approximately \$1.076 million in cash.

### **Addition of Geological and Management Capacity**

Mr Peter Temby, a resource industry professional and qualified exploration geologist of more than 40 years of predominantly field based experience, has joined the Company to manage geological, production and planning roles as required. In addition Mr Temby will perform as consulting exploration geologist, working closely with Mr Plumridge, in his more focussed role as senior exploration and prospecting geologist for the Company.

Mr Temby has overall responsibility for commercial targeting of exploration conducted by the Company and will oversee the execution of the various work programs in collaboration with Mr Plumridge.

The Company considers itself fortunate to have two such senior, well credentialed and experienced geologists to deliver its work programs. Mr Temby worked for many years with CRA Exploration and has spent considerable time at both Fifield NSW (Platinum) and Bingara NSW (Diamonds) in his capacities as field geologist. His complementary expert knowledge brings significant benefit to the Company and provides great assistance and extra capacity to the field activities being performed by Mr Plumridge.

## **Issued Capital**

The issued capital at the close of business at 30<sup>th</sup> September 2009 was unchanged:

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



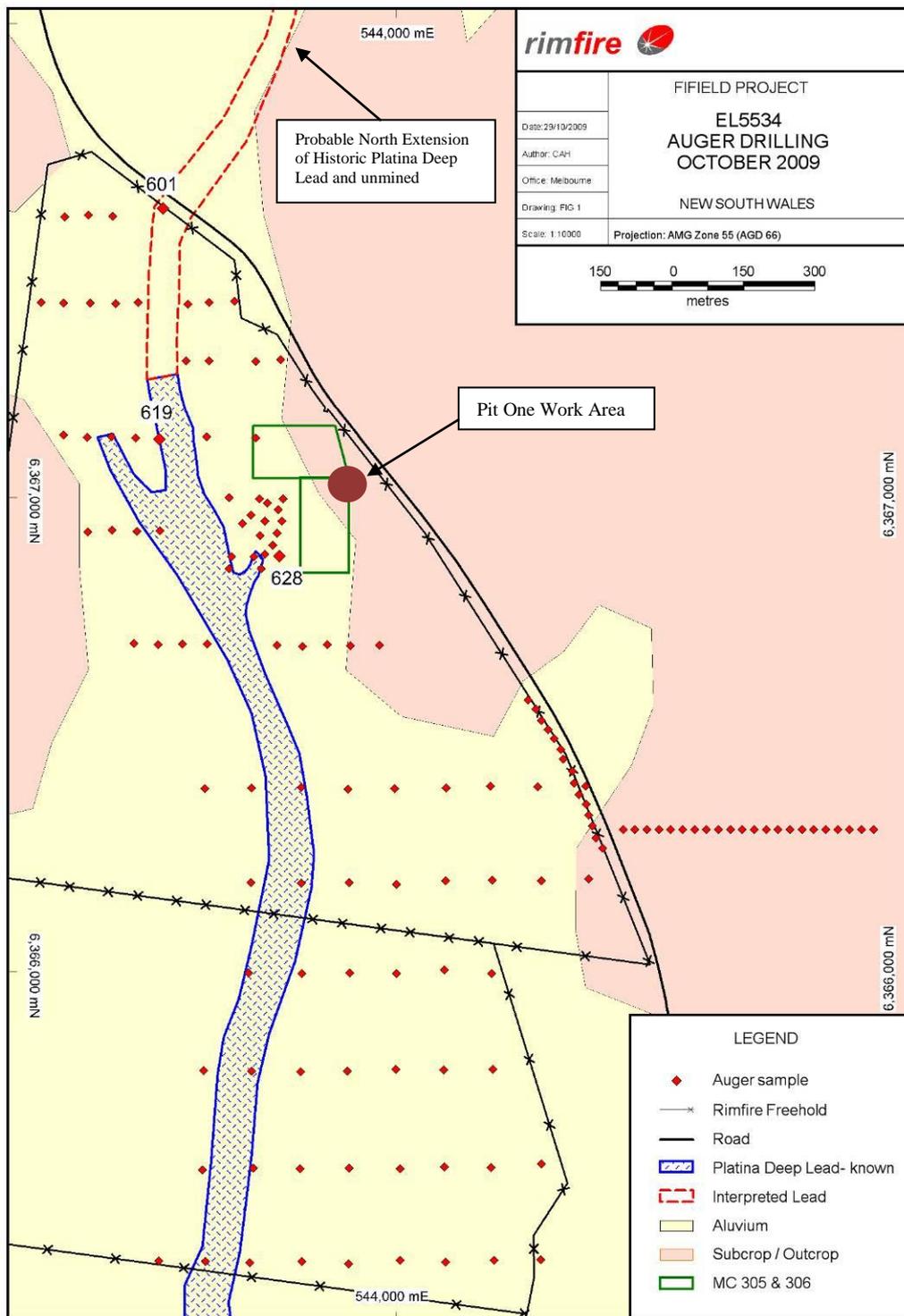
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**JOHN KAMINSKY**  
**Executive Chairman**

*The information in the report to which this statement is attached that relates to Exploration Results is compiled by Mr Peter Temby who is a Member of The Australian Institute of Geoscientists, in collaboration with Mr Colin Plumridge, who is a Member of The Australian Institute of Mining and Metallurgy, each with over 30 years experience in the mineral exploration and mining industry. Mr Temby is employed by Anpet Exploration Pty Ltd, whilst Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. Both Mr Temby and Mr Plumridge have 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 Temby and Mr Plumridge consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.*

## Appendix 1

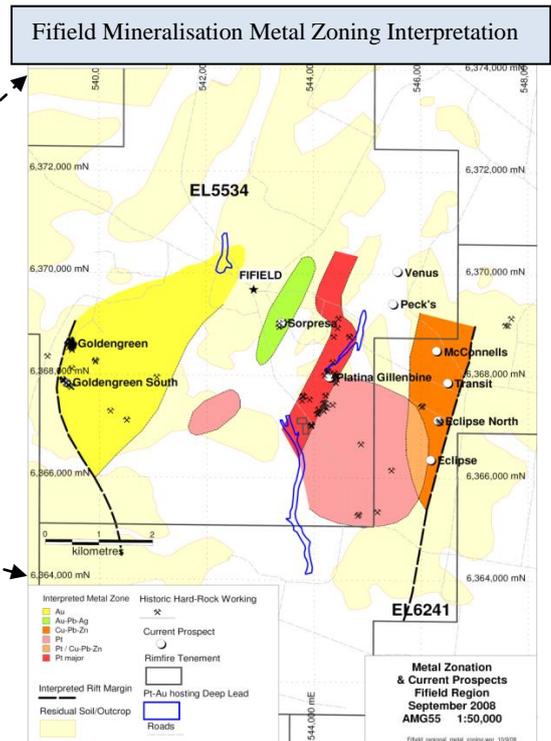
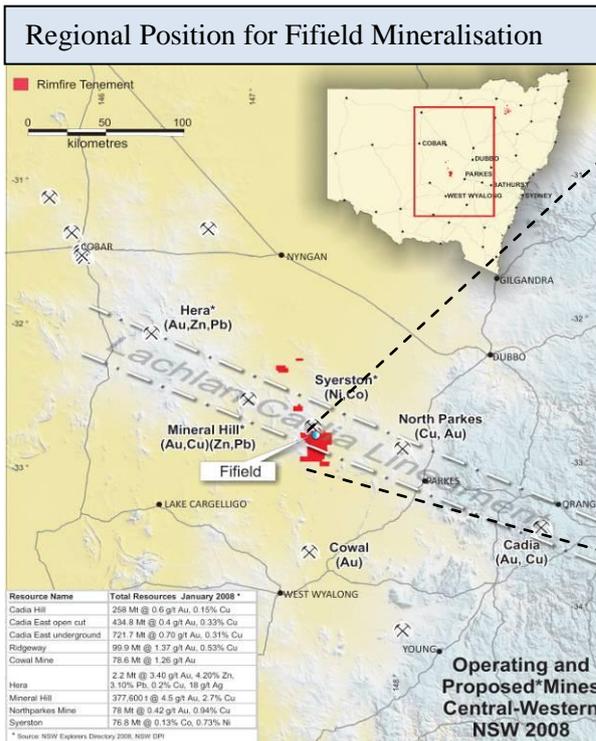
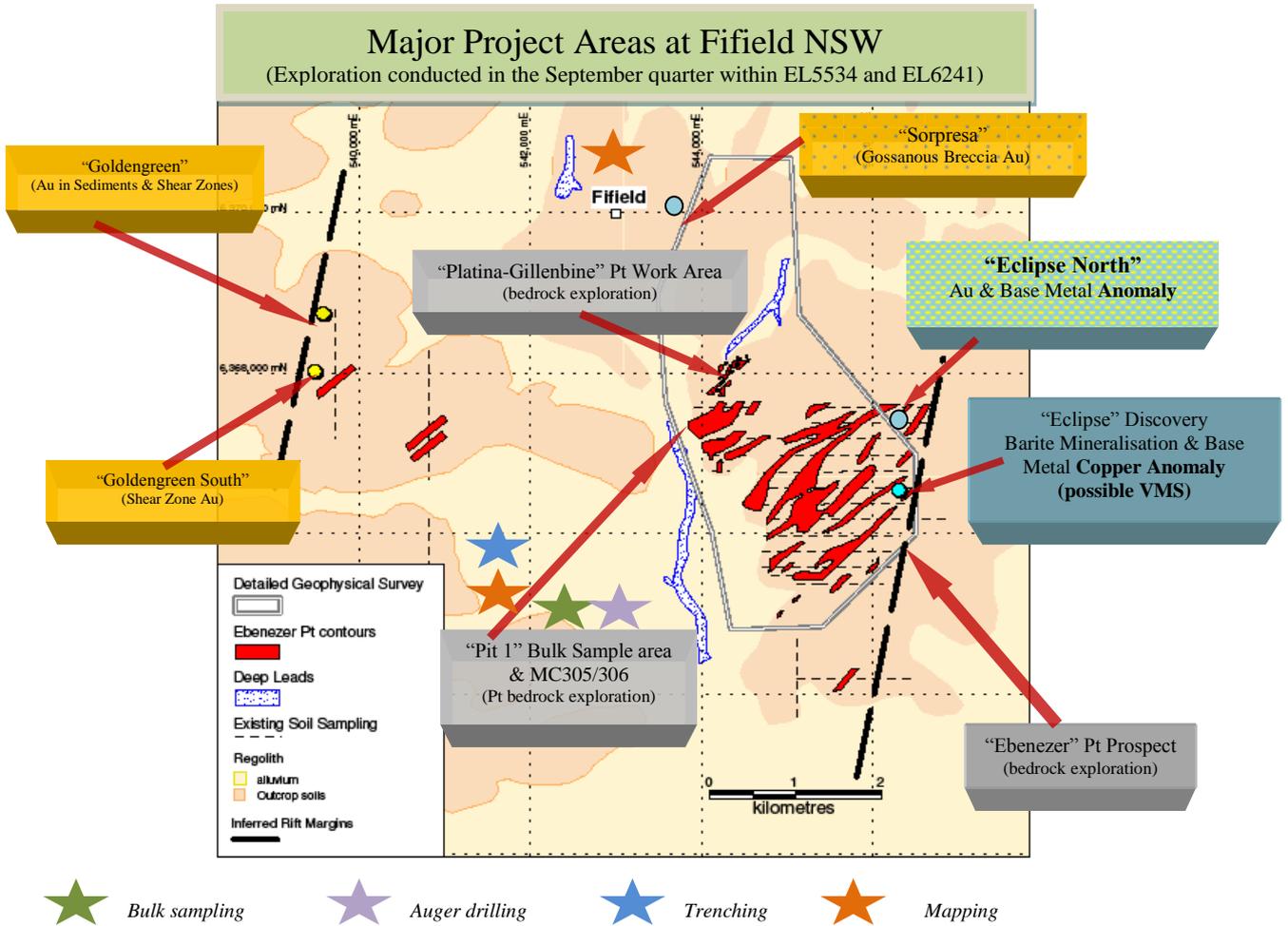
### Auger Drilling Program for definition of Platina Valley, Tributaries and Gravel System



*The auger drill hole locations shown above represent holes that have been completed or are due to be completed. A few specific hole reference numbers are given as a guide. Approx. 58 holes into gravel were completed at the time of reporting.*

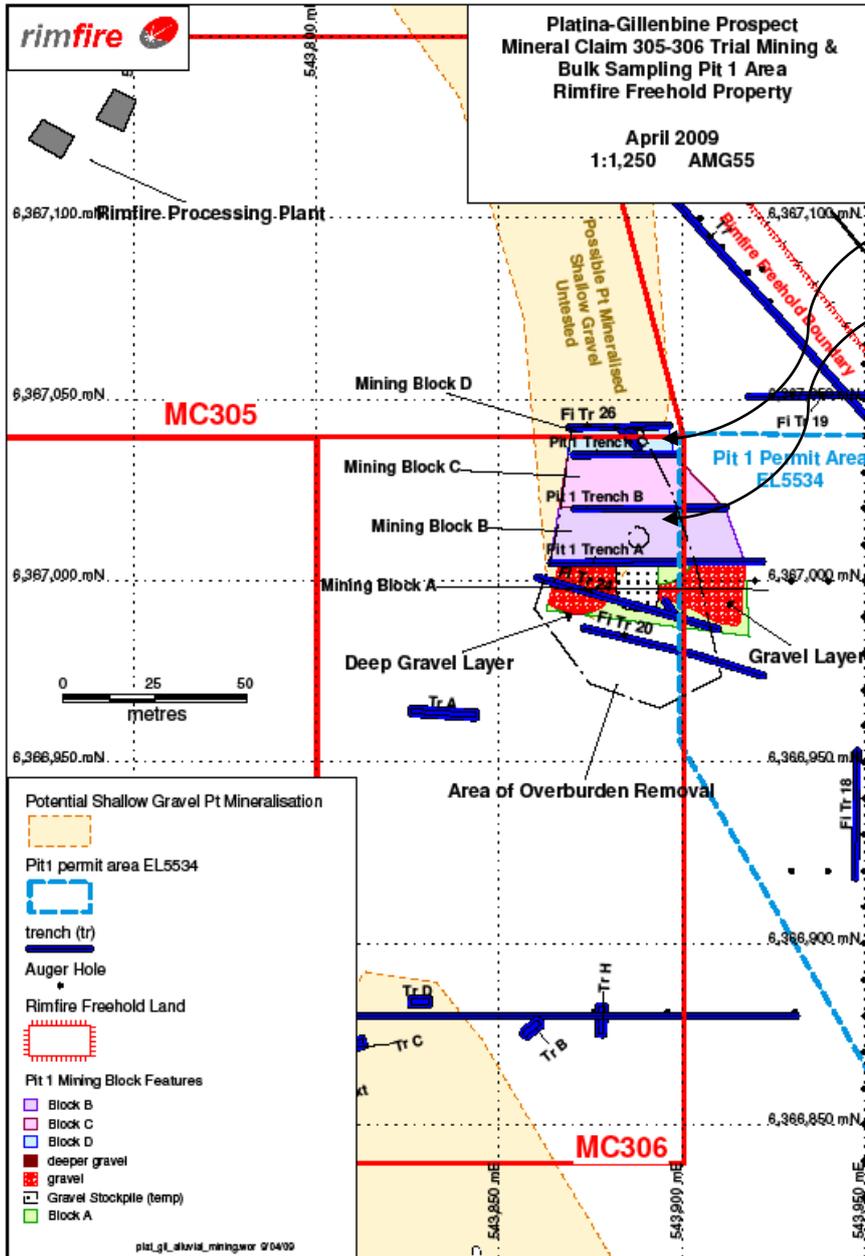
## APPENDIX 2

### Project Areas Fifield NSW and Metal Zoning Interpretations



**APPENDIX 3**

**Pit One and MC305 &306 Bulk Sampling Area**



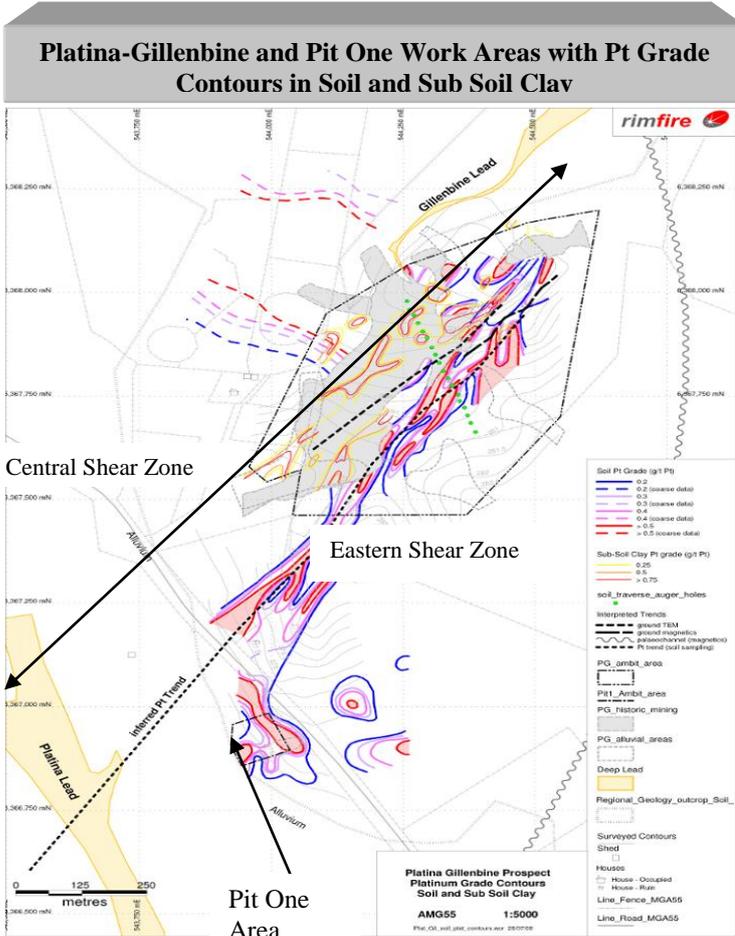
Block B & D gravel now fully removed and processed ([Video 1](#))



Pit One is now exposed to Bedrock over an area of approx. 3,000sqm

## APPENDIX 4

### 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 2008, 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, 24a, 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](#)

<sup>4</sup> [ASX Announcement 13-12-2006 link](#)

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