EL 24699 ‘Top Springs Creek East’
McARTHUR RIVER REGION, NT

RELINQUISHMENT REPORT
ON BLOCKS RELINQUISHED AT THE CONCLUSION OF
YEAR TWO OF TENURE

submitted by

GRAVITY DIAMONDS LIMITED
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EL 24699 ‘Top Springs Creek East’
Holder: Gravity Diamonds Ltd
Grant Date: 01 December 2005
1:250,000 sheet: Walhallow
Minerals Sought: diamonds, base metals
EL 24699 forms part of a major diamond exploration enterprise in the Northern Territory initiated by Gravity Diamonds (then Gravity Capital) in 2003. The foundation of this enterprise has been a farmin agreement between Rio Tinto Exploration Pty Ltd (“Rio Tinto”) and Diamond Mines Australia Pty Ltd (“DMA”, a 100%-owned subsidiary of Gravity Diamonds) covering numerous Rio Tinto-controlled tenements and applications in the Northern Territory. Under this agreement, DMA has conducted diamond exploration over the tenements utilising the recently-developed Falcon™ airborne gravity gradiometer system, which has been shown to be very effective in detecting kimberlite pipes.

Gravity has also acquired a significant tenement holding in its own right in the NT. The initial Falcon™ programs in 2003 resulted in the discovery of a kimberlite pipe within the ‘Abner Range’ survey area, some 35 kilometres northeast of EL 24699, and this led Gravity to apply for a number of areas in proximity to the discovery.

EL 24699 comprising 7 sub blocks was granted to Gravity on 25 November 2005. The area had previously formed part of EL 9926, one of the Rio Tinto-controlled tenements included in the above farmin arrangement. The decision to proceed with a partial relinquishment on EL 9926 was made just prior to the discovery of the Abner Range kimberlite pipe, and subsequently it was agreed that Gravity should re-acquire the ground in its name, but include any new tenure within the terms of the farmin.

A relinquishment of 3 blocks comprising the western section of the licence was made at the conclusion of Year 2.
CONTENTS

1. Introduction
2. Location and Access
3. Geological Setting and Economic Potential
4. Previous Exploration
5. Work Completed in Year 1 on Relinquished Blocks
6. Work Completed in Year 2 on Relinquished Blocks
7. Environment and Rehabilitation
8. Conclusions and Recommendations

FIGURES

1. EL 24699 Tenement Location
2. EL 24699 Blocks Retained and Relinquished at end of Year 2
INTRODUCTION

EL 24699 comprising 7 sub blocks was granted to Gravity Diamonds Limited (‘Gravity’) on 01 December 2005.

The EL forms part of a major diamond exploration enterprise in the Northern Territory initiated by Gravity (then Gravity Capital) in 2003. The foundation of this enterprise has been a farmin agreement between Rio Tinto Exploration Pty Ltd (“Rio Tinto”) and Diamond Mines Australia Pty Ltd (“DMA”, a 100%-owned subsidiary of Gravity Diamonds) covering numerous Rio Tinto-controlled tenements and applications in the Northern Territory. Under this agreement, DMA has conducted diamond exploration over the tenements utilising the recently-developed Falcon™ airborne gravity gradiometer system, which has been shown to be very effective in detecting kimberlite pipes.

Gravity has also acquired a significant tenement holding in its own right in the NT. The initial Falcon™ programs in 2003 resulted in the discovery of a kimberlite pipe within the ‘Abner Range’ survey area, some 35 kilometres northeast of EL 24699, and this led Gravity to apply for a number of areas in proximity to the discovery.

EL 24699 was one such area, but as the area had fallen within the Rio Tinto farmin arrangement immediately prior to the Abner Range discovery, it is included within the farmin.

LOCATION AND ACCESS

EL 24699 is located 30 kilometres south of Cape Crawford and 65 kilometres west of the Merlin diamond mine on the Walhallow 1:250,000 map sheet in the northeastern part of the Northern Territory (figure 1). It lies within the Mallapunyah Springs pastoral lease (PPL1075). Access to the area is via the Tablelands Highway and station tracks on Mallapunyah.

GEOLOGICAL SETTING AND ECONOMIC POTENTIAL

EL 24699 lies within the Batten Trough of the Mesoproterozoic McArthur Basin. The N-S trending Tawallah Fault Zone is the largest scale structure in the district and it is regarded as having similar significance to the Emu Fault, which lies 60km east of the tenement and is associated with McArthur River Zn-Pb mine and the Merlin diamond mine.

The 1800-1400Ma stratigraphy and mineralisation of the Batten Trough, from youngest to oldest, can be summarized as follows:

- Roper Group arenites, shales, iron formations and dolerite sills.
- Nathan Group (or Mt Rigg Group) carbonates that host Zn-Pb mineralisation, e.g. the Bulman Zn-Pb deposits.
- McArthur Group fine clastics and carbonates that host strata bound Zn-Pb-Ag and Cu deposits, eg, the HYC (McArthur) Zn-Pb-Ag mine, Mariner Zn-Pb and Sly Creek Cu deposits.
- Tawallah Group arenites, black shales and basalts hosting Cu in the Redbank district and U at Westmoreland. There are also a number of Cu occurrences hosted Talwallah Group proximal to the McArthur Project area.
Proterozoic outcrop within the project area is dominated by McArthur Group rocks with minor Nathan Group occurrences and Cretaceous cover rocks in the eastern part of the tenement (Figure 2).

**PREVIOUS EXPLORATION**

Historic work in the area has included regional aeromagnetic surveys and reconnaissance sampling for diamonds and base metals.

Within EL 24699 there a single sample was gathered by CRA in the mid 1980’s. While this was negative, the sample size was small and recent work has shown that such sampling may not have been definitive.

On this basis, and owing to the proximity of the area to the Merlin diamond field and Gravity’s recent discovery at Abner Range, the area is regarded as prospective for diamonds.

**WORK COMPLETED IN YEAR 1 ON RELINQUISHED BLOCKS**

During year 1 of tenure, open file data was gathered and re-assessed. No strong new exploration leads were revealed and a plan to increase the density of heavy mineral sampling was formed.

**WORK COMPLETED IN YEAR 2 ON RELINQUISHED BLOCKS**

During Year 2 of EL 24699 two Heavy Mineral gravel samples were collected within the tenement from the only suitable drainages within the licence area. Neither sample is located in the blocks relinquished at this time.

A relinquishment of 3 blocks comprising the western section of the licence was made at the conclusion of Year 2.

**ENVIRONMENT AND REHABILITATION**

No requirement for rehabilitation arose on the relinquished blocks as no ground disturbing exploration was carried out.

**CONCLUSIONS AND RECOMMENDATIONS**

EL 24699 lies within 35 kilometres of the newly discovered, diamondiferous pipe at Abner Range. Geological reconnaissance suggests the area could contain a concealed kimberlite pipe and prior exploration has been minimal. No suitable locations for drainage sampling could be located within the relinquished blocks.
Legend
- Gravity Diamonds tenement
- Aboriginal Land Trust
- Pastoral boundary
- Locality
- Road
- Drainage

Figure 1
EL24699 Location Map
Showing Aboriginal Land Trust
and Pastoral Lease Boundaries