EL 9926 TATOOLA CREEK
McARTHUR RIVER REGION, NT

FINAL REPORT

ON EXPLORATION ACTIVITIES

submitted by

GRAVITY DIAMONDS LIMITED
(ACN - 72 009 178 689)
Level 7, Exchange Tower
530 Little Collins Street, Melbourne, Victoria, 3000

on behalf of
Diamond Mines Australia Pty Ltd
and
Ashton Mining Ltd

EL 9926 ‘Tatoola Creek’
Holder: Ashton Mining Ltd
Grant Date: 20 January 2003
Surrender Date: 18 June 2008
1:250,000 sheet: Bauhinia Downs
Minerals Sought: diamonds, base metals
SUMMARY

EL 9926 forms part of a farmin agreement between Rio Tinto Exploration Pty Ltd (“Rio Tinto”) and Diamond Mines Australia Pty Ltd (“DMA”) covering numerous Rio Tinto-controlled tenements and applications in the Northern Territory. Under this agreement, DMA is conducting predominantly 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 Diamonds Limited (“Gravity”) is managing the farmin arrangement for Diamond Mines Australia and owns 100% of DMA.

During the initial year of tenure, a review of historic exploration data, including surface sampling focussed on diamonds, was conducted by Gravity and a number of anomalous results were noted in and around EL 9926. At the end of year 2 of tenure seven (7) of the original fifteen (15) sub blocks were relinquished after little progress had been made in targeting on the EL.

The initial field program of the Rio Tinto joint venture had comprised flying Falcon™ airborne gravity gradiometer surveys focussed on a number of anomalous areas, including the “Abner Range” area located approximately 20km to the northeast of EL 9926 (see figure 2). This resulted in the discovery of two kimberlite pipes within the Abner survey area, some 30 kilometres northeast of the tenement. The discovery was made subsequent to the decision to partially relinquish EL 9926.

Subsequent exploration on EL 9926 has included aerial photography acquisition and geological reconnaissance – especially given the information gleaned from the discovery of the Abner Range kimberlite pipes. Stream gravel samples have been collected in the past reporting year from an adjoining tenement EL 24699 with the drainages sampled both primarily sourced from within EL 9926. Each of these samples were negative and efforts to locate suitable sample sites within the very small tenement EL 9926 were unsuccessful.

As the tenement had little prospect of hosting a substantial kimberlite it was handed back to Rio Tinto in March 2008 and the licence was subsequently surrendered on 18 June 2008. There was no further work undertaken by Rio Tinto from the time the licence was handed back by Gravity and the date of surrender on 18 June 2006.
CONTENTS

1. Introduction
2. Location and Access
3. Geological Setting and Economic Potential
4. Previous Exploration
5. Work Completed by Gravity
6. Environment and Rehabilitation

FIGURES

1. EL 9926 Tenement Location
2. Regional Geology showing tenements
INTRODUCTION

EL 9926 was granted to Ashton Mining Ltd on 20 January 2003. The area forms part of a substantial group of tenements in the McArthur River region, controlled by Rio Tinto Exploration who acquired the assets of Ashton Mining in late 2000. During 2002, Rio Tinto entered into negotiation with Gravity Capital Limited (now Gravity Diamonds Limited) (“Gravity”) concerning the deployment of the Falcon™ airborne gravity gradiometer system over Rio Tinto’s diamond tenements in northern Australia. The Falcon™ system is a unique exploration tool developed by BHP Billiton and it has particular application in diamond exploration.

EL 9926, although known from prior exploration to have areas with anomalous diamond samples, was not one of the top priority areas covered in the 2004 airborne program. Subsequent exploration on the tenement and in surrounding and adjoining tenement indicates that it has little prospect of hosting a major kimberlite body

LOCATION AND ACCESS

EL 9926 is located 30 kilometres southwest of McArthur River homestead and 60 kilometres west of the Merlin diamond mine on the Bauhinia Downs 1:250,000 map sheet in the northeastern part of the Northern Territory (Figure 1). It lies within the Mallapanyah Springs pastoral lease (PPL1075). Access to the area is via the Tablelands Highway, then via station tracks.
GEOLOGICAL SETTING AND ECONOMIC POTENTIAL

EL 9926 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 55km 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 by Tawallah Group proximal to the McArthur Project area.

Proterozoic outcrop within the project area is dominated by McArthur Group rocks with minor Tawallah and Nathan Group occurrences in the southern part of the tenement.

PREVIOUS EXPLORATION

Historic work in the area has included regional aeromagnetic surveys and reconnaissance sampling for diamonds and base metals. The significant results from this work have been reported in previous annual reports.

A number of historic sample sites in tenements within and adjacent to EL 9926 have been reported as hosting anomalous indicator minerals and/or microdiamonds.

An agreement covering much of the Rio Tinto-controlled diamond exploration tenements in northern Australia was finalised in July 2003 between Rio Tinto and DMA. Review of available geophysical and geochemical data was carried out by Gravity (managing the project on behalf of DMA) and this confirmed considerable potential for diamondiferous kimberlites. EL 9926 and neighbouring tenements which form part of the Gravity Diamonds – Diamond Mines Australia – Rio Tinto “Northern Australia Diamonds” Joint Venture were confirmed as containing microdiamonds and kimberlitic indicator minerals.
WORK COMPLETED BY GRAVITY

The field program for year 1 of the joint venture (2004), which comprised flying Falcon™ airborne gravity gradiometer surveys was focussed on a number of areas, including the “Abner Range” area to the east of EL 9926 (Figure 2). Coverage of EL 9926 was planned for 2005 but the system was not available during this time. At the end of year 2 of tenure seven (7) of the original fifteen (15) sub blocks were relinquished after little progress had been made in targeting on the EL.

Subsequent to this partial relinquishment Gravity discovered a diamond-bearing kimberlite at Abner Range some 25km to the north east of the EL, and interest in the tenement was renewed. Aerial photography at 1:50,000 scale was acquired over the tenement area and which was digitally processed to produce a geo-rectified mosaic. Geological assessment of the photography was carried out and subsequent field reconnaissance was carried out.

During year 5 of tenure an attempt to locate suitable stream sediment sample sites in the very limited drainages observed in EL 9926 was made whilst carrying out a regional helicopter supported sampling program. An experienced geologist travelled over the entire tenement area at low flying height however the drainages encountered were of such limited extent that it was considered both unviable and uneconomic to sample within the tenement boundary.

Gravity did carry out exploration programs on neighbouring tenements during this sampling program, collecting stream drainage samples that were at least partially sourced from within EL 9926. The results from this sampling was negative indicating that EL 9926 had limited prospect to host a major kimberlitic intrusive

As the tenement had little prospect of hosting a substantial kimberlite it was handed back to Rio Tinto in March 2008 and the licence was subsequently surrendered on 18 June 2008. There was no further work undertaken by Rio Tinto from the time the licence was handed back by Gravity and the date of surrender on 18 June 2008.

ENVIRONMENT AND REHABILITATION

No requirement for rehabilitation arose during the term of the licence.