EL 9926 TATOOLA CREEK
McARTHUR RIVER REGION, NT

ANNUAL REPORT

ON EXPLORATION ACTIVITIES
YEAR TWO OF TENURE
20 January 2004 – 19 January 2005

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
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 will conduct predominantly diamond exploration over the tenements and will utilise the newly-developed Falcon™ airborne gravity gradiometer system, which has been shown to be very effective in detecting kimberlite pipes.

Gravity Diamonds Ltd is managing the farmin arrangement for Diamond Mines Australia and owns 40% 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.

The field program for Year 1 of the joint venture, which comprised flying Falcon™ airborne gravity gradiometer surveys was focussed on a number of areas, including the "Abner Range" area located approximately 10km to the east of EL 9926 (see figure 2).

Due to exploration prioritisation on adjacent project areas and the onset of an early wet season the planned exploration on EL 9926 during the 2004 field season was postponed and subsequently unable to proceed. This work is now scheduled to commence in 2005. No on-ground work was completed in the tenement during year 2.

Expenditure on the tenement during the reporting period totalled $1,052

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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.

BHP Billiton and Gravity concluded an arrangement on Falcon™ deployment in Australia during the year (ASX announcement 01/07/2003) and then Gravity formed a farmin joint venture, through its 40%-owned associated company, Diamond Mines Australia Pty Ltd ("DMA") with Rio Tinto Exploration, concerning the diamond and base metal exploration over a large number of Rio Tinto-controlled tenements in the Northern Territory (ASX announcement 25/07/2003). EL 9926 and the neighbouring tenements form part of the DMA-Rio Tinto joint venture.

On the basis of these agreements, Gravity (on behalf of DMA) commenced diamond exploration in the Northern Territory during July 2003.

In essence, the agreements provide for DMA to deploy the Falcon™ system and earn an interest in any discovery. BHP Billiton retains a right to buy into DMA's interest in any discovery. Gravity is managing all exploration for DMA.

The flying program in year 1 was planned to cover areas of strongly anomalous diamond indicator mineral sampling results, obtained from Rio Tinto's prior work. Subsequent flying and ground follow-up would be dependent on the results of the year 1 flying program.

While the principal target in the area is diamonds, some interest is also directed toward base metal deposits.

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 year 1 program.

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 sheet area in the northeastern part of the Northern Territory (figure 1). It lies mainly within Aboriginal freehold land (Mambaliya Rrumburriya Wuyaliya Land Trust) with the southern part located within the Mallapanyah Springs pastoral lease (PPL1075). Access to the area is via the roads connecting the Walhallow and McArthur River districts.

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 summarised as follows:

- Roper Group arenites, shales, iron formations and dolerite sills.
- Nathan Group (or Mt Rigg Group) carbonates that host Zn-Pb mineralisation, eg, 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 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 were compiled by Rio Tinto (figure 2).

Within and adjacent to EL 9926 there a number of sample sites which have returned anomalous indicator minerals and/or microdiamonds.

On this basis, and owing to the proximity of the area to Merlin, the area is regarded as prospective for diamonds.

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.

The field program for year 1 of the joint venture, 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 (see figure 2).

WORK COMPLETED IN YEAR 2

Due to exploration prioritisation on adjacent project areas and the onset of an early wet season the planned exploration on EL 9926 during the 2004 field season was postponed and subsequently unable to proceed. This work is now scheduled to commence in 2005. No on-ground work was completed in the tenement during year 2.

ENVIRONMENT AND REHABILITATION

No requirement for rehabilitation arose during the second year of tenure as no field work was carried out.

CONCLUSIONS AND RECOMMENDATIONS

EL 9926 lies within an area of anomalous kimberlitic indicator sampling results and forms part of a large project area centred on the Merlin diamond district. The nature and timing of further exploration will be based on the interpretation and testing of the Falcon™ data flown on other areas in the region during 2003. Exploration during the 2004 field season focussed on priority targets defined by the Falcon survey in adjacent project areas,

The onset of an early wet season resulted in the planned exploration on EL 9926 during the 2004 field season being abandoned.

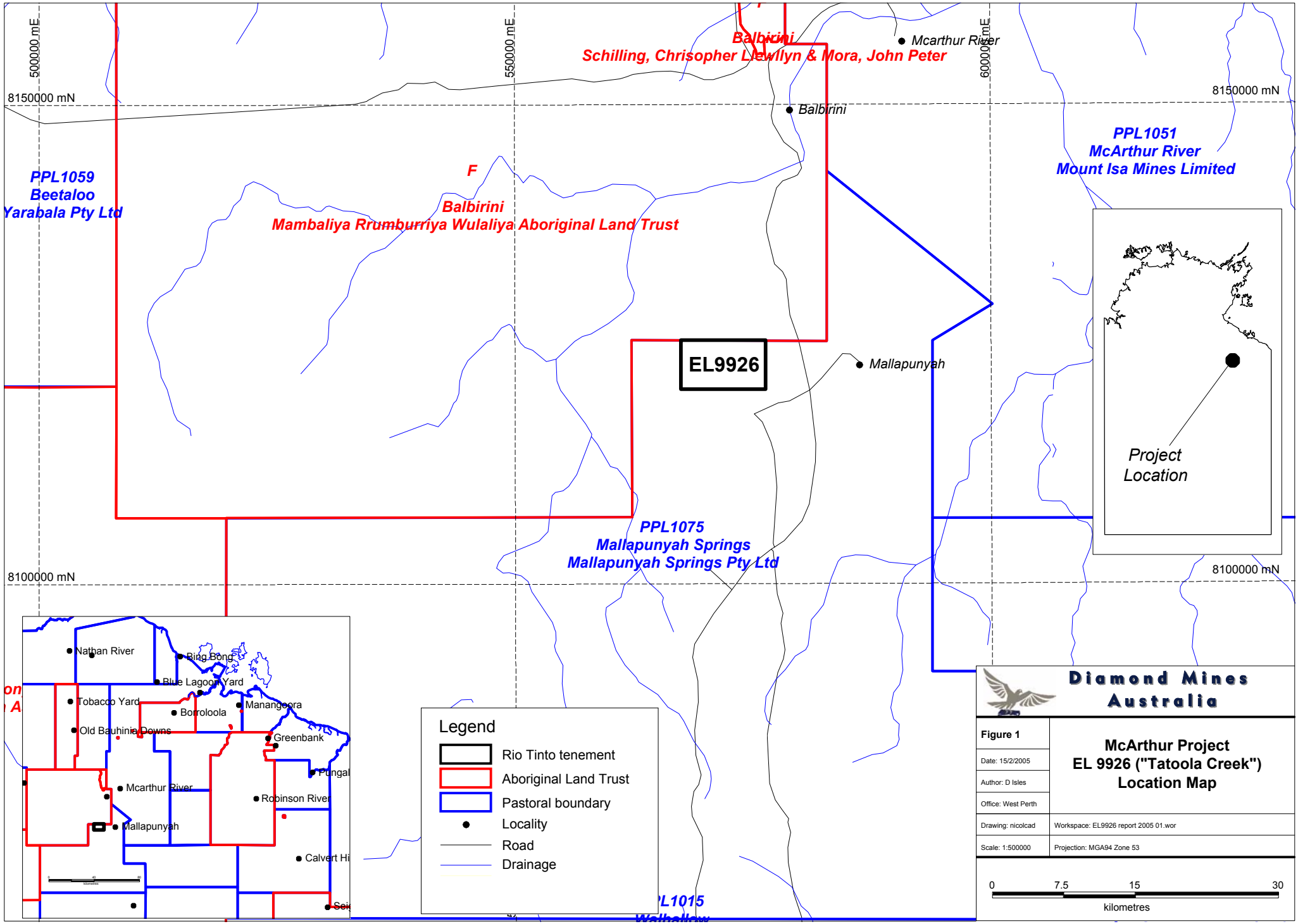
Field exploration in and around EL 9926 is scheduled for the 2005 field season.

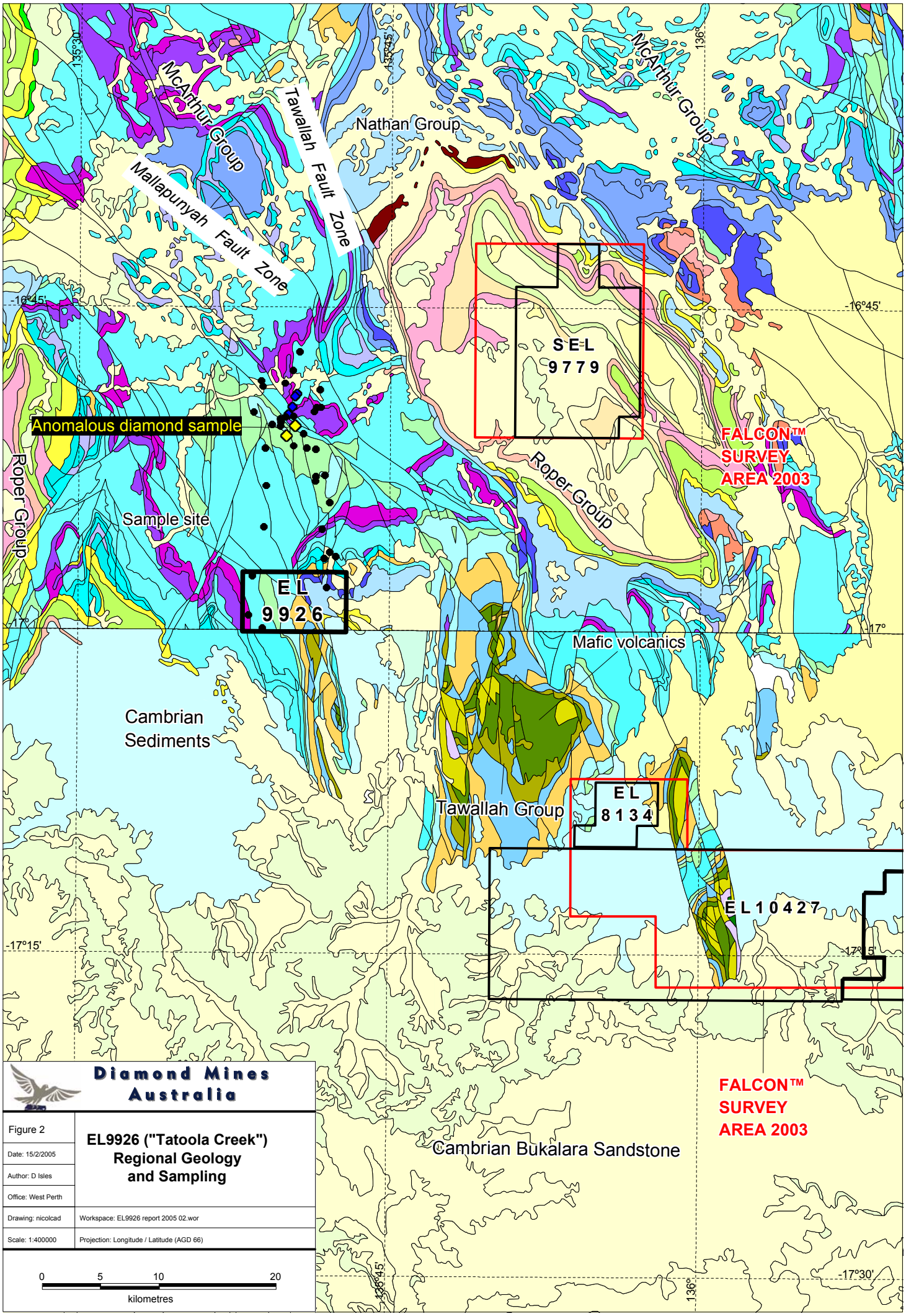
EXPENDITURE STATEMENT

Personnel costs	$ 440
Cartography	$ 100
Travel and accommodation costs	$ 12
Administration/overhead	$ 500
Total	$ 1,052

PROPOSED EXPLORATION BUDGET

Airborne Geophysics	$ 20,000
Field support & logistics	$ 2,000
Sampling and sample analysis costs	$ 8,000
Personnel costs	$ 6,000
Tenement maintenance, access, clearances	$ 2,000
Office support, computing, cartography	$ 1,000
Administration, legal, overhead	$ 1,000
Total	**$ 40,000**


500000 mE
550000 mE
600000 mE
8150000 mN
8100000 mN
Balbirini
Schilling, Chrisopher Llewllyn & Mora, John Peter
Mcarthur River
Balbirini
PPL1059
Beetaloo
Yarabala Pty Ltd
F
Balbirini
Mambaliya Rrumburriya Wulaliya Aboriginal Land Trust
PPL1051
McArthur River
Mount Isa Mines Limited
EL9926
Mallapunyah
Project
Location
PPL1075
Mallapunyah Springs
Mallapunyah Springs Pty Ltd
Nathan River
Ring Bong
Blue Lagoon Yard
Tobacco Yard
Borroloola
Manangoora
Old Bauhinia Downs
Greenbank
Mcarthur River
Robinson River
Mallapunyah
Legend
Rio Tinto tenement
Aboriginal Land Trust
Pastoral boundary
Locality
Road
Drainage
Diamond Mines Australia
Figure 1
Date: 15/2/2005
Author: D Isles
Office: West Perth
Drawing: nicolcad
Workspace: EL9926 report 2005 01.wor
Scale: 1:500000
Projection: MGA94 Zone 53
McArthur Project
EL 9926 ("Tatoola Creek")
Location Map
0
7.5
15
30
kilometres


McArthur Group
Tawallah Fault Zone
Mallapunyah Fault Zone
Nathan Group
McArthur Group
135°30'
135°45'
136°
-16°45'
-17°
-17°15'
-17°30'
SEL 9779
FALCON™ SURVEY AREA 2003
Anomalous diamond sample
Sample site
Roper Group
Roper Group
EL 9926
Mafic volcanics
Cambrian Sediments
Tawallah Group
EL 8134
EL 10427
FALCON™ SURVEY AREA 2003
Cambrian Bukalara Sandstone
Diamond Mines Australia
Figure 2
EL9926 ("Tatoola Creek") Regional Geology and Sampling
Date: 15/2/2005
Author: D Isles
Office: West Perth
Drawing: nicolcad
Workspace: EL9926 report 2005 02.wor
Scale: 1:400000
Projection: Longitude / Latitude (AGD 66)
0 5 10 20
kilometres