



EL 22307
McARTHUR RIVER REGION, NT

**RELINQUISHMENT REPORT
ON BLOCKS DROPPED AT THE CONCLUSION OF
YEAR FIVE OF TENURE
PERIOD ENDING 5 AUGUST 2007**

submitted by

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

on behalf of

Diamond Mines Australia Pty Ltd

&

Rio Tinto Exploration Pty Ltd

EL 22307 Mariner
Holder: Rio Tinto Exploration Pty Ltd
Grant Date: 6 August 2002
1:250,000 Sheet : **Bauhinia Downs SE 53-03**
Minerals Sought: Diamonds, Base metals

SUMMARY

EL 22307 is located near the old Bauhinia Downs homestead, approximately 75 kilometres west of Borroloola in the Gulf Region of the Northern Territory. The tenement forms part of a farm-in agreement between Rio Tinto and Diamond Mines Australia Pty Ltd (“DMA”) covering numerous Rio Tinto tenements and applications in the Northern Territory. Gravity Diamonds Ltd (formerly Gravity Capital Ltd) is managing the farm-in arrangement for Diamond Mines Australia. Under the terms of the farm-in agreement, DMA is conducting predominantly diamond exploration by utilising the Falcon™ airborne gravity gradiometer system. The Falcon™ system has been shown to be effective in detecting kimberlite pipes. EL 22307 is considered prospective for commercial sources of diamonds. Historic sampling has identified kimberlitic indicator mineral occurrences, including diamonds within the tenement.

A Falcon™ airborne gravity gradiometer survey was planned and flown in September 2003. The survey covered 217 km² within EL 22307 and comprised a total of approximately 2500 line kilometres of effective survey coverage. The coverage within blocks relinquished during 2007 is limited to 8, one minute graticule blocks

Limited work was completed within EL 22307 during year 4 of tenure, primarily due to weather and drilling contractor availability issues. Sampling within the relinquished blocks was carried out during the Year 5 tenure, with two gravel samples collected and processed from within the relinquished blocks. This sampling was carried out as a part of a larger campaign focussed on EL 22307. Both gravel samples failed to contain kimberlitic indicator minerals

A relinquishment of eighteen (18) blocks was made at the conclusion of Year 5 of EL 22307. An application for a partial waiver for twenty (20) blocks was approved by the Department, leaving a retained area of fifty-eight (58) blocks in tenement EL 22307.

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INTRODUCTION

EL 22307 was granted to Rio Tinto Exploration Pty Ltd (“Rio Tinto”) on 6 August 2002. During 2002, Rio Tinto entered into negotiations with Gravity Capital 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 2003 (ASX announcement 01/07/2003). Gravity then formed a farm-in joint venture with Rio Tinto, through its then 40% owned associated company, Diamond Mines Australia Pty Ltd (“DMA”), with regard to diamond and base metal exploration over Rio Tinto-controlled tenements in the Northern Territory (ASX announcement 25/07/2003). EL 22307 forms part of the DMA - Rio Tinto joint venture.

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

Falcon™ data was acquired over a portion of EL 22307 in September 2003. Processed data was received in early 2004. This data covers 8 of the 18 blocks relinquished during 2007

In October 2004 Gravity Capital changed the name of the company to “Gravity Diamonds Ltd” and acquired the 60 % share of DMA it did not already own. DMA is now 100 % owned by Gravity Diamonds. First-pass follow-up of targets generated from this survey occurred during late 2004.

LOCATION AND ACCESS

EL 22307 is located near the old Bauhinia Downs homestead, approximately 75 kilometres west of Borroloola in the Gulf Region of the Northern Territory. The tenement lies in the central part of the Billengarra pastoral lease (administered by the Northern Territory Land Corporation) and is accessible via station tracks (Figure 1).

GEOLOGICAL SETTING & ECONOMIC POTENTIAL

EL 22307 is considered prospective for commercial sources of diamonds, as well as base metals. Historic sampling has identified kimberlitic indicator mineral occurrences, including diamonds within the tenement.

The EL 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 40km east of the tenement and is associated with McArthur River Zn-Pb mine and the Merlin diamond mine, which lies 75km to the south east of the tenement.

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 outcrops within the project area predominantly belong to the McArthur Group.

PREVIOUS EXPLORATION

A number of strata-bound and vein-hosted base metal occurrences hosted by Proterozoic sediments are located near the Scrutton Range which lies north of EL 22307 an area previously included in the Rio Tinto – DMA farm-in agreement. Several previously explored prospects, including Great Scott, Tanaburs and Johnstone, lie within the tenement.

A substantial amount of historic diamond exploration work has been carried out within and in areas surrounding the tenement. The main prospect identified to date is the Tanaburs Prospect (also known as Leila Creek) which was identified by Ashton in the 1990s. The prospect is located in an excised block internal to EL 22307, however, the source of diamond and indicator mineral anomalies within the excised block may well be sourced from within EL 22307. Ashton noted that Cretaceous sediments within the prospect area contain fossilised wood fragments similar to those found on the Merlin plateau.

Stream sediment, loam and bulk sampling for diamonds, geomorphological studies, detailed airborne magnetics and drilling have been completed within EL 22307. Macrodiamonds (up to 1.15 cts), a few microdiamonds and indicator minerals (chromite) were recovered from drainages within the tenement. Limited RAB drilling, testing airborne magnetic, EM and geomorphic features, did not intersect kimberlite. Three of the historic holes are within the excised portion of the Licence but did not intersect kimberlite. Ashton considered that a small mafic dyke, in the north of the excised portion of EL 22307, was not the source of the diamonds and indicator minerals.

During year 1 of Rio Tinto's tenure, available geophysical and geochemical data was reviewed, confirming the potential for diamondiferous kimberlites. Prior to the formalisation of the Exploration Agreement with DMA and Gravity, Rio Tinto gathered 19 rock chip samples in the tenement as part of its regional base metal reconnaissance program. These were reported in 2003.

WORK COMPLETED IN YEAR 2 ON RELINQUISHED BLOCKS

On the basis of the anomalous diamond and base metal results, a Falcon™ airborne gravity gradiometer survey was planned and flown in September 2003. In addition to the gravity gradiometer data, the Falcon™ system records total magnetic intensity and laser scanner data, of which the latter is used to construct a very accurate (1m vertical resolution) digital elevation model.

The survey was flown on north-south oriented lines, 100m apart at a height of 80m above ground level. It covered 217 km² within the tenement and comprised a total of approximately 2500 line kilometres of effective survey coverage. Eight of the eighteen blocks relinquished in August 2007 were covered by this data set. Interpretation and exploration targeting from the Falcon™ data was completed, with target areas defined for follow-up work. Statutory requirements for field access and approvals for work programs were finalised to allow testing of these targets to commence during Year 3 of tenure.

WORK COMPLETED IN YEAR 3 ON RELINQUISHED BLOCKS

Of the 12 anomalies initially selected from the Falcon™ data by DMA for potential follow-up within EL 22307, none were sited within the relinquished block areas so no exploration was carried out on them during Year 3.

WORK COMPLETED IN YEAR 4 ON RELINQUISHED BLOCKS

Limited work was completed within EL 22307 during year 4 of tenure, primarily due to weather and drilling contractor availability issues. Whilst exploration and sampling was carried out within EL 22307, no samples were collected within the relinquished blocks.

WORK COMPLETED IN YEAR 5 ON RELINQUISHED BLOCKS

During the past year of tenure, exploration activities within EL 22307 have focused primarily on indicator mineral sampling, with two phases of sampling completed during the reporting period, these being in October 2006, and July 2007.

Due to the current boom in exploration activities within the NT and Australia wide, the company has continued to have problems securing suitable drill rigs to test targets within EL 22307 and other nearby project areas.

A total of 2 gravel samples were collected from relinquished blocks within EL 22307 during the year. The samples comprised approximately 40 kg of -1.6 mm material recovered from the best available trap sites within the drainages. Access to the sample sites was achieved using a Jet Ranger helicopter hired from Jayrow in Darwin. The base used for the sampling program was Cape Crawford, which lies some 30 km to the southeast of EL 22307.

The samples were sent to Diatech Laboratories in Perth for processing through a micro DMS plant and recovery of kimberlite indicator minerals from the -1.2mm +0.3mm fraction of the DMS concentrate. Unfortunately neither sample contained kimberlitic indicator mineral or diamonds. Details regarding the samples collected during year 5 of tenure are contained in Table 1 below, with sample locations illustrated by Figure 3. Detailed analysis results relating to the sampling is Appendix I.

Table 1: Indicator Mineral Sample Details – EL22307

| SAMPLE | TYPE | EASTING WGS84 | NORTHING WGS84 | ANOMALY | CHROMITE | TENEMENT | COLLECTION |
|--------|--------|------------------|-------------------|---------|----------|----------|------------|
| 169051 | GRAVEL | 563735 | 8185846 | | 0 | EL22307 | 15/10/2006 |
| 169052 | GRAVEL | 566690 | 8187510 | | 0 | EL22307 | 15/10/2006 |

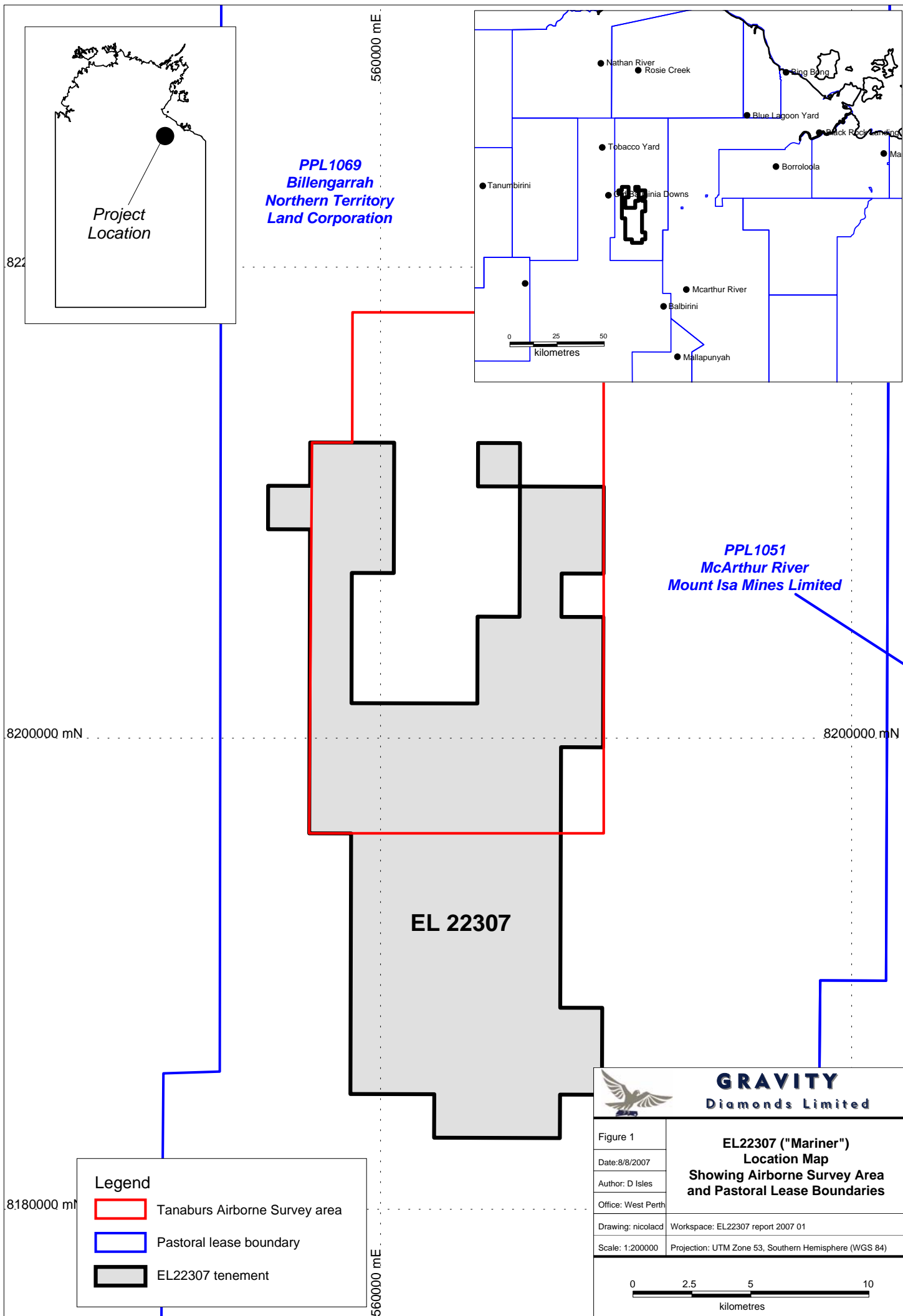
A relinquishment of eighteen (18) blocks was made at the conclusion of Year 5 of EL 22307. An application for a partial waiver for twenty (20) blocks was also approved so that an area of fifty-eight (58) blocks was retained for Year 5 of EL 22307.

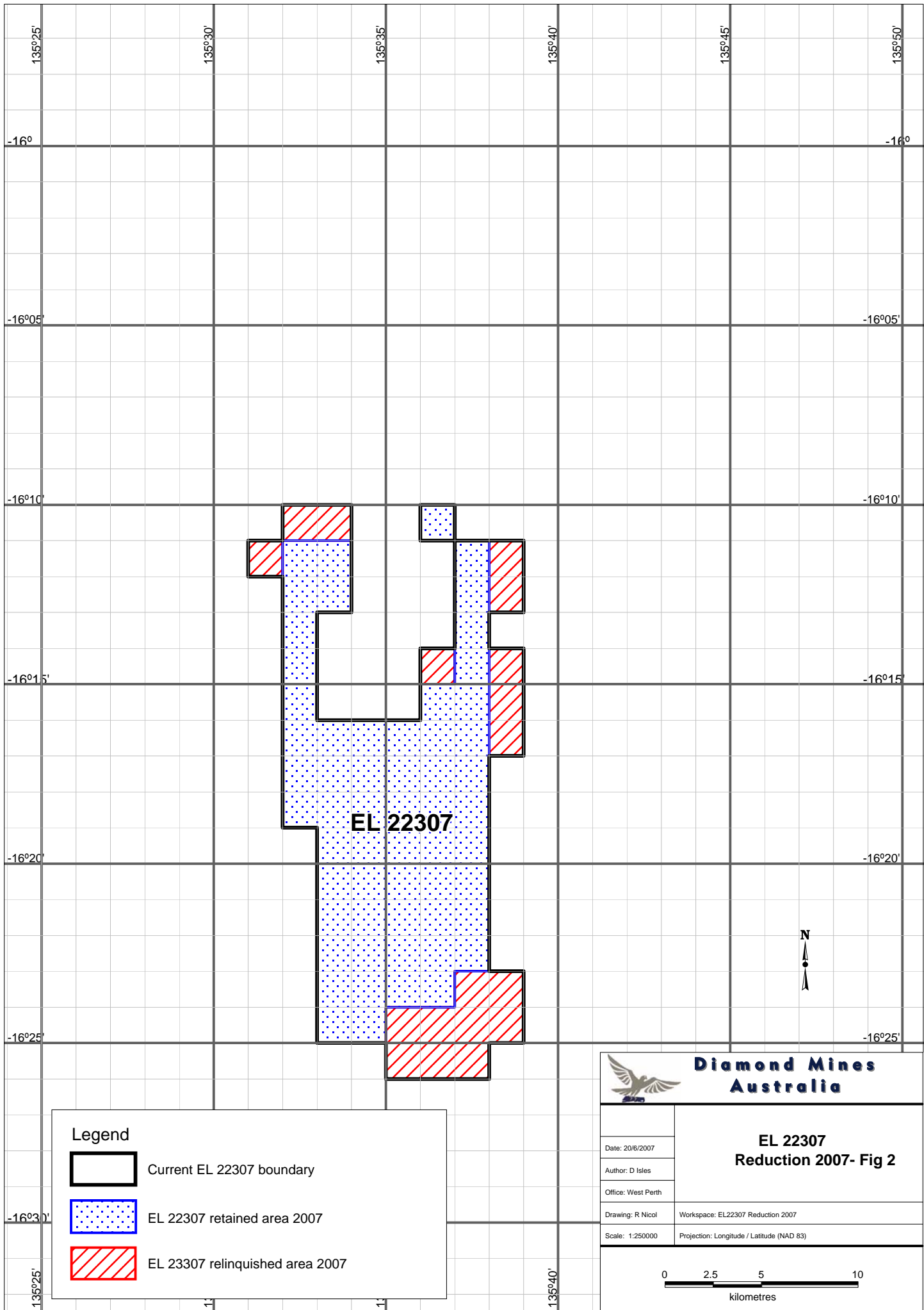
ENVIRONMENT AND REHABILITATION

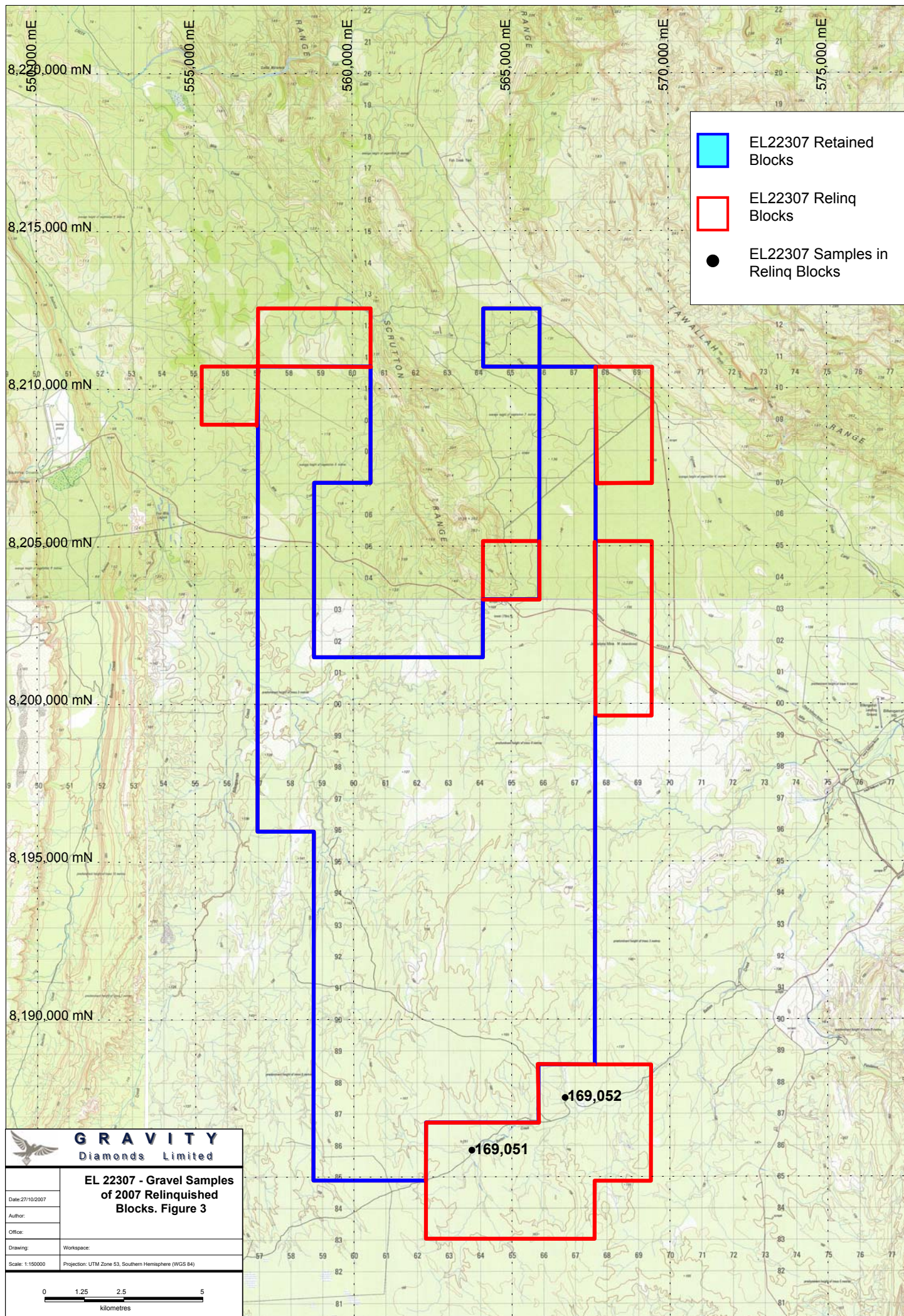
The exploration activities undertaken within the relinquished area of EL 22307 had no impact on the environment, being essential low impact stream sediment sampling and hence there was no requirement for rehabilitation.

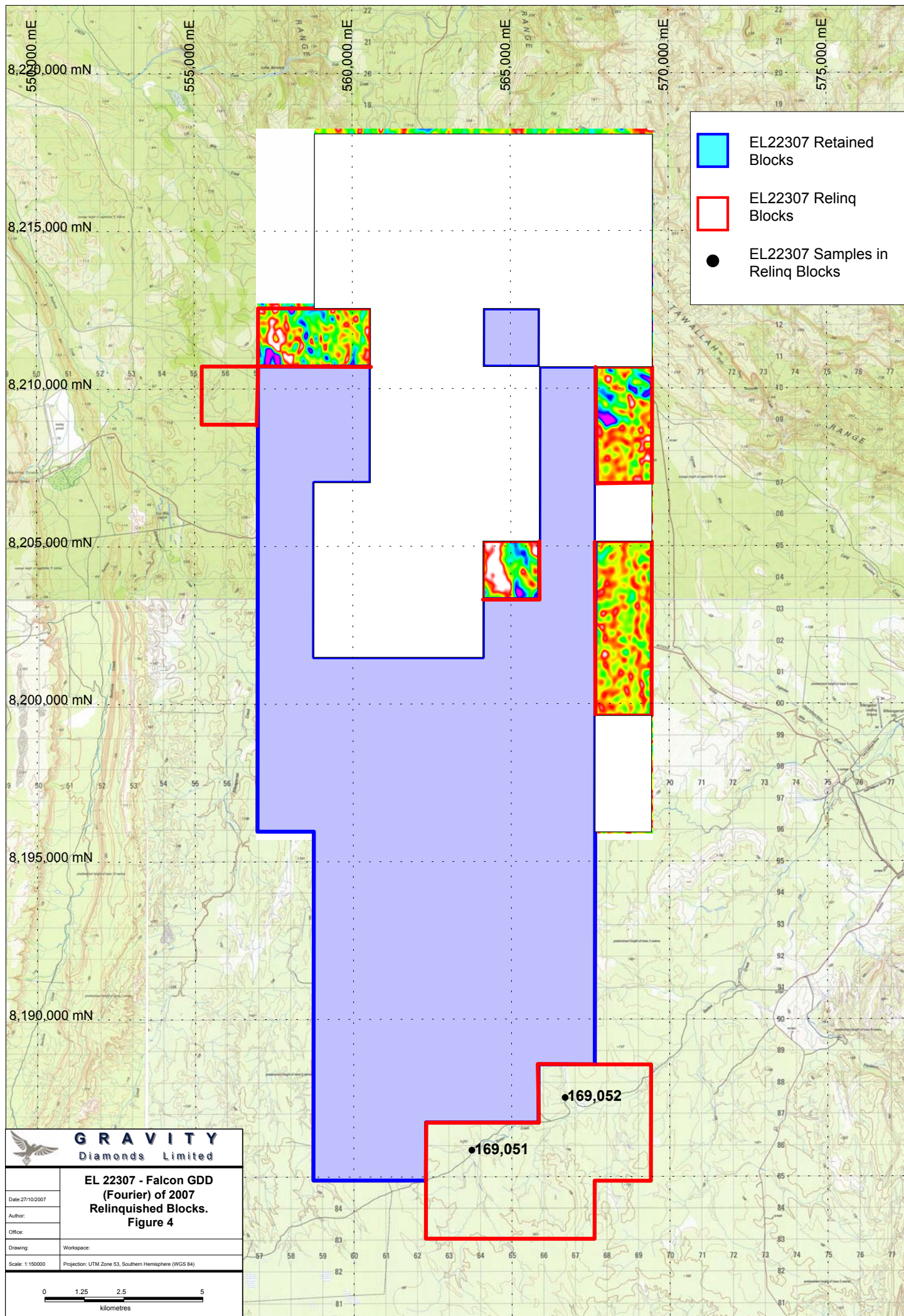
CONCLUSIONS AND RECOMMENDATIONS

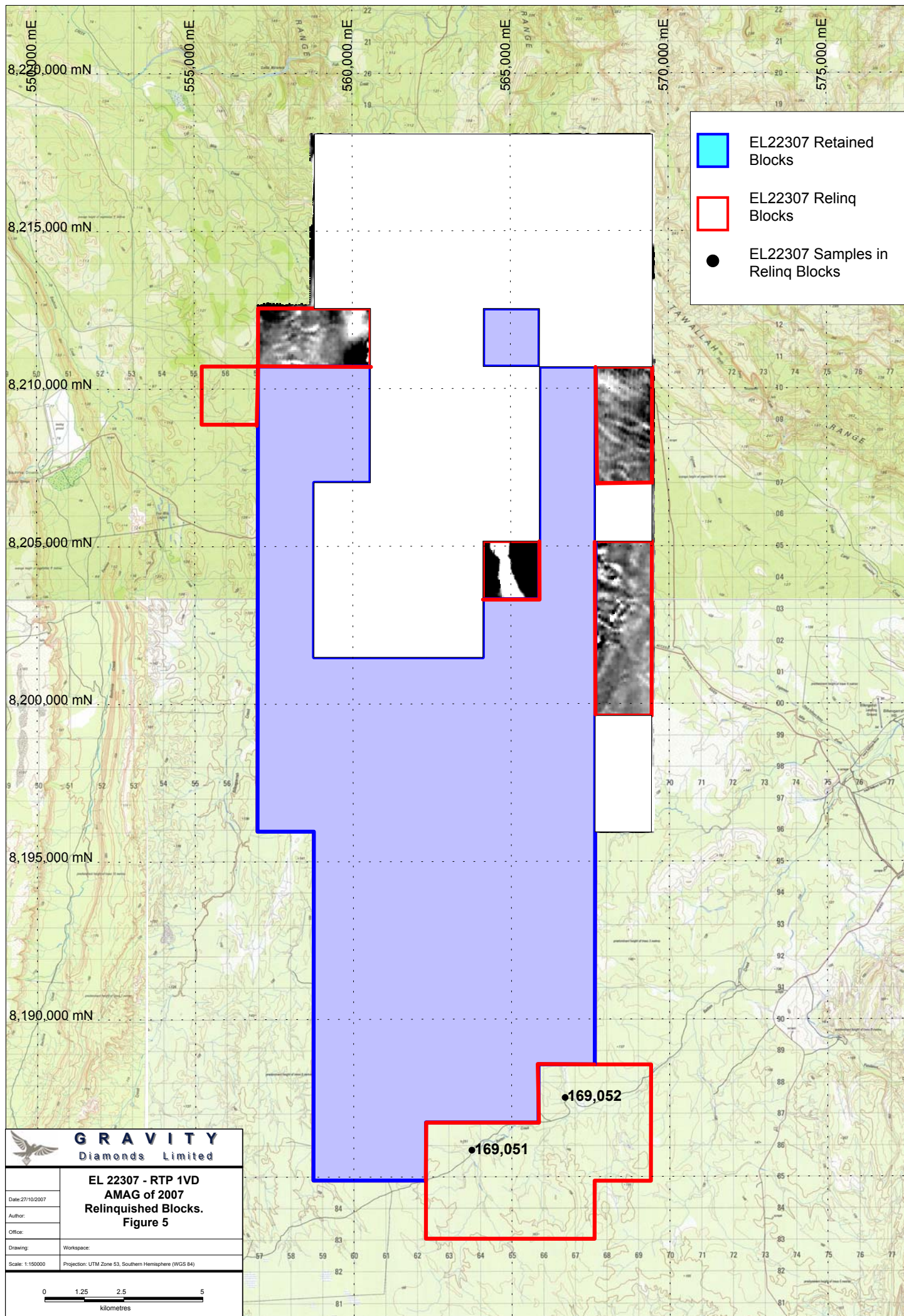
No kimberlite targets remain within the relinquished blocks of EL 22307 and it is recommended that they be relinquished.

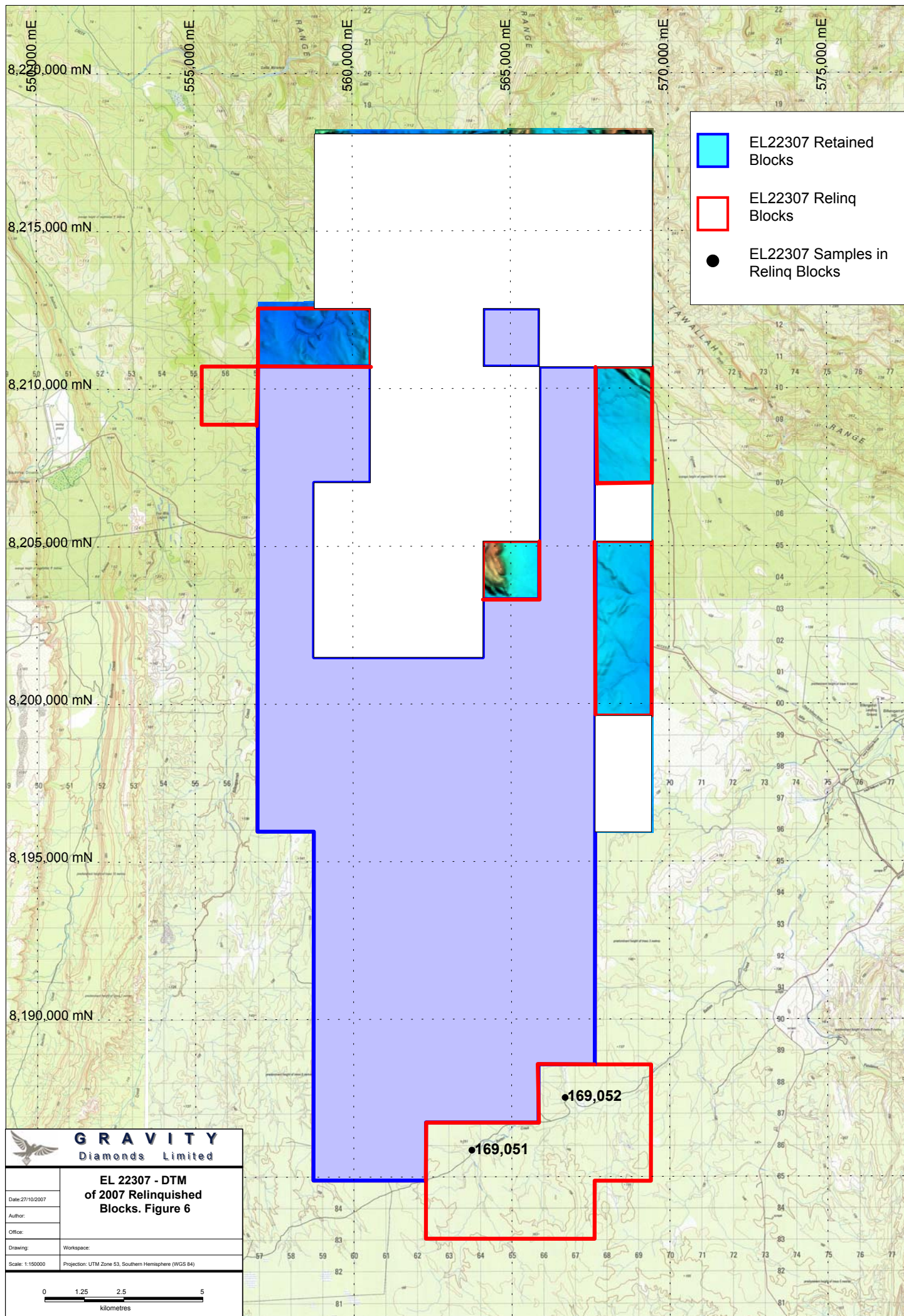












Appendix 1

HMA Sheets from Diatech



DIATECH

Ph 61 8 9361 2596

Fx 61 8 9470 1504

Detailed Heavy Mineral Analysis

Our Job No.: 06082

Disc No.:

Sample No:**169051**

Overall Sample Assessment:

Negative

Your Project Code:

Tanaburs

Sample Type (as collected): Stream Sediment

Head Weight 0 kg

Sample Type (as received): Stream Sediment

Wet Weight kg

Observed Sample Type: DMS Concentrate

Diamond**Number of particles in each size fraction**

| mm | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | Total particles | Description of these particles |
|----|------|------|------|------|------|-------|-------|-------|-----------------|--------------------------------|
|----|------|------|------|------|------|-------|-------|-------|-----------------|--------------------------------|

Key Minerals**Number of particles in each size fraction**

| mm | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | Wear | Overall Morph. Group | Total particles | No of particles probed | PRIORITY based on Morphology only) | PRIORITY based on morphology and Probe) |
|----|------|------|------|------|------|-------|-------|-------|------|----------------------|-----------------|------------------------|------------------------------------|---|
|----|------|------|------|------|------|-------|-------|-------|------|----------------------|-----------------|------------------------|------------------------------------|---|

Other Minerals**% Percentage of particles in each size fraction**

| mm | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | Wear | Colour | Angularity | Lustre | Transparency | Form/Shape |
|----|------|------|------|------|------|-------|-------|-------|------|--------|------------|--------|--------------|------------|
|----|------|------|------|------|------|-------|-------|-------|------|--------|------------|--------|--------------|------------|

| | | | | | | | | | | | | | | |
|--------------------|---|---|------|------|------|---|---|---|----|--|--|--|--|--|
| Anatase | | | | | Tr | | | | MW | | | | | |
| Barite | | | Tr | Tr | Tr | | | | MW | | | | | |
| Fe Oxide/Hydroxide | | | 100 | 100 | 100 | | | | W | | | | | |
| Leucoxene | | | Tr | Tr | Tr | | | | W | | | | | |
| Muscovite | | | Tr | | | | | | W | | | | | |
| Rutile | | | | | Tr | | | | W | | | | | |
| Tourmaline | | | Tr | Tr | Tr | | | | W | | | | | |
| Zircon | | | | | Tr | | | | W | | | | | |
| TOTAL | % | % | 100% | 100% | 100% | % | % | % | | | | | | |

What Has Been Observed?

Final Conc Weight 167.1100 g Size Range -1.2+0.3 mm

Weight Observed 167.1100 g

Magnetic Fractions vs Size Fraction

| mm | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 |
|------|------|------|------|------|------|-------|-------|-------|
| NM | | | All | All | All | | | |
| M6/7 | | | All | All | All | | | |
| M4/5 | | | All | All | All | | | |

Comment about this sample:**Technician:**

JED

Date Observed:

24-Nov-06

Report Printed:

1/12/2006 1:43:53 PM



DIATECH

Ph 61 8 9361 2596

Fx 61 8 9470 1504

Detailed Heavy Mineral Analysis

Our Job No.: 06082

Disc No.:

Sample No:

169052

Overall Sample Assessment:

Negative

Your Project Code:

Tanaburs

Sample Type (as collected): Stream Sediment

Head Weight 0 kg

Sample Type (as received): Stream Sediment

Wet Weight kg

Observed Sample Type: DMS Concentrate

Diamond

| mm | Number of particles in each size fraction | | | | | | | | Total particles | Description of these particles |
|----|---|------|------|------|------|-------|-------|-------|-----------------|--------------------------------|
| | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | | |

Key Minerals

| mm | Number of particles in each size fraction | | | | | | | | Wear | Overall Morph. Group | Total particles | No of particles probed | PRIORITY based on Morphology only) | PRIORITY based on morphology and Probe) |
|----|---|------|------|------|------|-------|-------|-------|------|----------------------|-----------------|------------------------|------------------------------------|---|
| | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | | | | | | |

Other Minerals

| mm | % Percentage of particles in each size fraction | | | | | | | | Wear | Colour | Angularity | Lustre | Transparency | Form/Shape |
|----|---|------|------|------|------|-------|-------|-------|------|--------|------------|--------|--------------|------------|
| | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 | | | | | | |

| | | | | | | | | | | | | | | | |
|--------------------|---|---|------|------|------|---|---|---|--|----|--|--|--|--|--|
| Almandine | | | | Tr | Tr | | | | | MW | | | | | |
| Anatase | | | | Tr | Tr | | | | | MW | | | | | |
| Barite | | | | Tr | Tr | | | | | MW | | | | | |
| Corundum | | | | | Tr | | | | | MW | | | | | |
| Epidote | | | | Tr | Tr | | | | | W | | | | | |
| Fe Oxide/Hydroxide | | | 100 | 100 | 100 | | | | | MW | | | | | |
| Ilmenite | | | | Tr | Tr | | | | | MW | | | | | |
| Kyanite | | | | | Tr | | | | | W | | | | | |
| Leucoxene | | | | Tr | Tr | | | | | W | | | | | |
| Rutile | | | | | Tr | | | | | W | | | | | |
| Tourmaline | | | | Tr | Tr | | | | | W | | | | | |
| Zircon | | | | Tr | Tr | | | | | MW | | | | | |
| TOTAL | % | % | 100% | 100% | 100% | % | % | % | | | | | | | |

What Has Been Observed?

Final Conc Weight 73.84000 g Size Range -1.2+0.3 mm

Weight Observed 73.84000 g

Magnetic Fractions vs Size Fraction

| mm | +1.2 | +1.0 | +0.8 | +0.4 | +0.3 | +0.25 | +0.20 | +0.10 |
|------|------|------|------|------|------|-------|-------|-------|
| NM | | | All | All | All | | | |
| M6/7 | | | All | All | All | | | |
| M4/5 | | | All | All | All | | | |

Comment about this sample:

Technician: BJG

Date Observed: 24-Nov-06

Report Printed: 1/12/2006 1:44:33 PM