AUSQUEST LIMITED
(ABN 35 091 542 451)

COMBINED FIRST ANNUAL

AND RELINQUISHMENT REPORT

PLENTY RIVER

EL 22873

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AusQuest Company Report 2007/01

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1.0 SUMMARY

This is the combined (first) annual and relinquishment report on AusQuest's Plenty River tenement, EL 22873.

This tenement was acquired as part of a larger project, searching for Broken Hill Style lead-zinc-silver mineralisation within a major transcurrent fault corridor, extending WNW-ESE through the region. A recent NT Government aeromagnetics survey, flown in late 2001, provided for east-southeastward extrapolation of this corridor, apparently extending through EL 22873. However, southward deepening cover sediments of the Eromanga Basin, indicated by water bore holes, greatly limit the potential effectiveness of rapid (airborne) methods geophysical exploration (principally electromagnetics).

In the absence of cost-effective exploration methodologies, and following a comprehensive evaluation of available data, EL 22873 was relinquished in November, 2006.

2.0 INTRODUCTION

EL 22873 was granted to AusQuest Limited on 22 December, 2005, for a term of six years. This report is the first and final report on that title.

Along with the adjacent block of AusQuest titles (Figure 1), application for EL 22873 was made on the premise that this area may be prospective for large, high-grade lead-zinc-silver deposits of the Broken Hill Type. The rationale for this interpretation is presented in Section 4, below.

AusQuest's exploration strategy was to sample and age date, where possible, potential target stratigraphy, thereby establishing its prospectivity (ie. Broken Hill / Cannington age rocks should be represented in zircon ages). Identification of 1.5 to 1.7 Ga rocks would lead to airborne EM over (magnetically extrapolated) target stratigraphy beneath shallow cover, to directly detect any buried massive sulphide deposits.

3.0 TITLE AND ACCESS

EL 22873 is situated in a remote area of the Simpson Desert, accessible by track only along Plenty River from the northwest (Figure 1). Both EL 22873 and the Plenty River access track lie within Attnetye aboriginal freehold land.

With the moratorium placed on AusQuest title applications to the west until November 2005 (and the continuation of an exclusion zone along the Plenty River, now ELA 25008), and for the technical reasons discussed below, access negotiations were not entered into with the Traditional Owners. Accordingly the area was not visited.

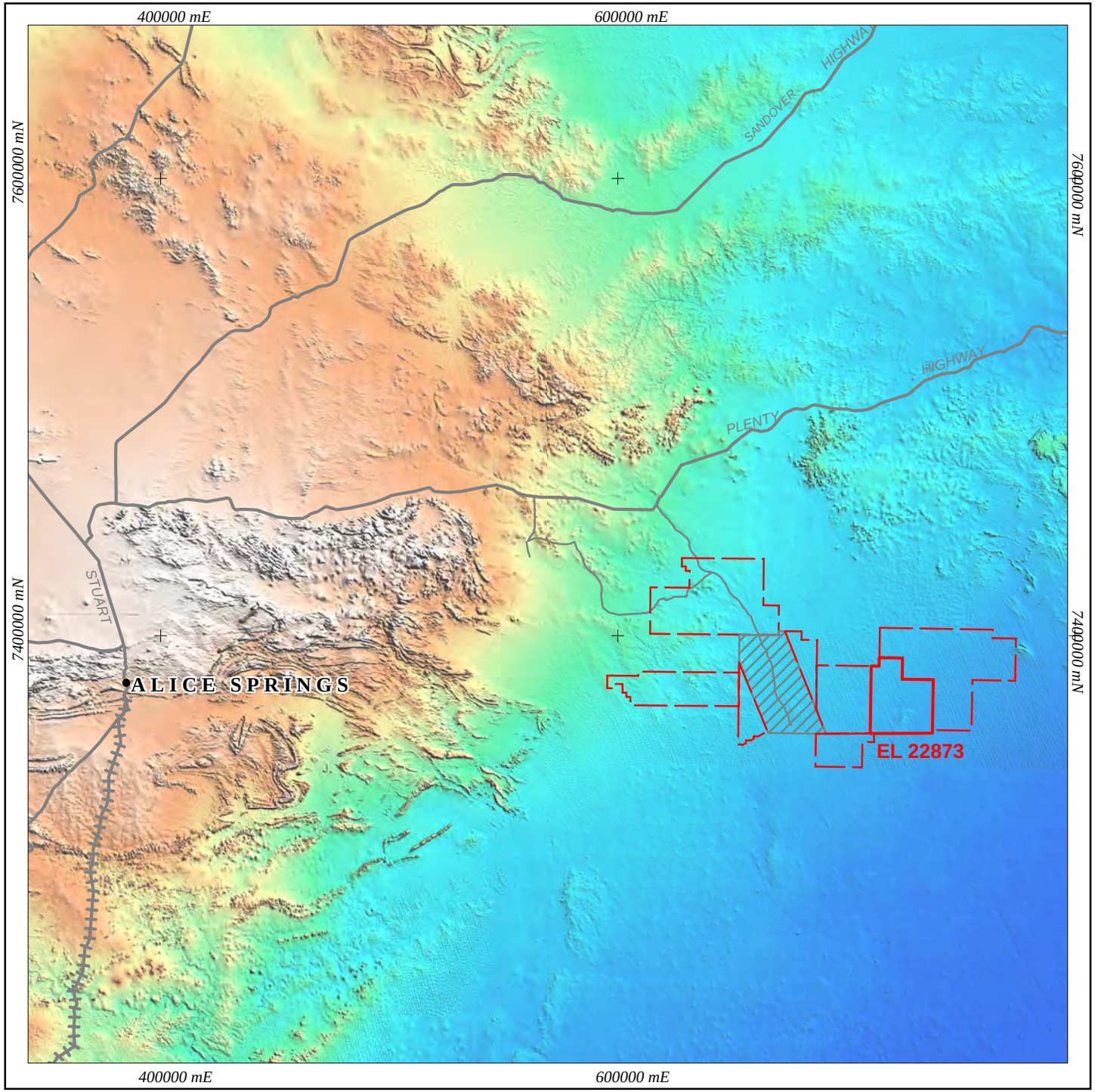

Figure 1

Plenty River Project

EL 22873

Location Plan

50 0 50

kilometres

Scale: 1:2,500,000

MGA zone 53 GDA94

AQ_07029

4.0 EXPLORATION CONCEPT

Due to their typically large size and high grade, Broken Hill Type lead-zinc-silver deposits have been intensively targeted in exploration along the eastern margin of the Precambrian shield in western Queensland and NSW. These heavily explored areas represent the extrapolated geological settings of the type occurrences of Cannington and Broken Hill deposits. From the evidence of discovery, recognition of favourable environments for the formation of such deposits elsewhere in Australia, has been more problematic.

In seeking favourable, less heavily explored terrains in which to seek this valuable deposit type, AusQuest has drawn on research of the model type and its distribution. An eastern continental margin setting is interpreted for both Broken Hill and Cannington. These geophysically prominent margins can be interpolated between Broken Hill and Cannington, into the eastern Arunta Province, along a very broad, trans-continental linear shear belt (the Larapinta structural corridor of Figure 2). This suggests that fault slices of Broken Hill-Cannington age rocks could have been structurally emplaced into the Arunta Province. Recent recognition by researchers of an exotic terrain in the East Arunta (Mawby, 2000; Buick *et al.*, 2001; Maidment *et al.*, 2002), whilst so far showing young (Neoproterozoic to Cambrian) rocks in the shear belt, can be reconciled with the above hypothesis.

As indicated in the Introduction (Section 2), the planned strategy for exploring this terrain, which is known to be only shallowly buried (at least in the north), would rely on airborne EM as a direct method of detecting massive sulphide deposits. This would allow rapid, affordable coverage of a large area, but to be effective, is limited to areas where any overburden on the target rocks is thin (~100 m or less) and non-conductive.

An initial phase of exploration, upon which a decision to proceed with the airborne EM survey would be based, is the confirmation of the prospectivity of the rocks to be targeted. This would entail the age dating of the limited exposures of target lithologies available and establishing whether detrital zircon populations reveal any peaks of approximating Broken Hill age (1.5 to 1.7 Ga).

The group of title applications lodged by AusQuest during the year 2000, of which EL 22873 was part, were made on the basis of the above exploration concept and plan.

5.0 PREVIOUS EXPLORATION

A review of previous exploration reported in the vicinity of EL 22873 reveals no previous mineral exploration activity. The nearest mineral exploration documented in Open File reports is ~25 km to the northwest, where Afmeco Pty Ltd (1981) document a ‘redox front’ uranium exploration program of EL 2182 (Figure 3). Six aircore holes, drilled in Afmeco’s program, yeilded no sign of mineralisation.

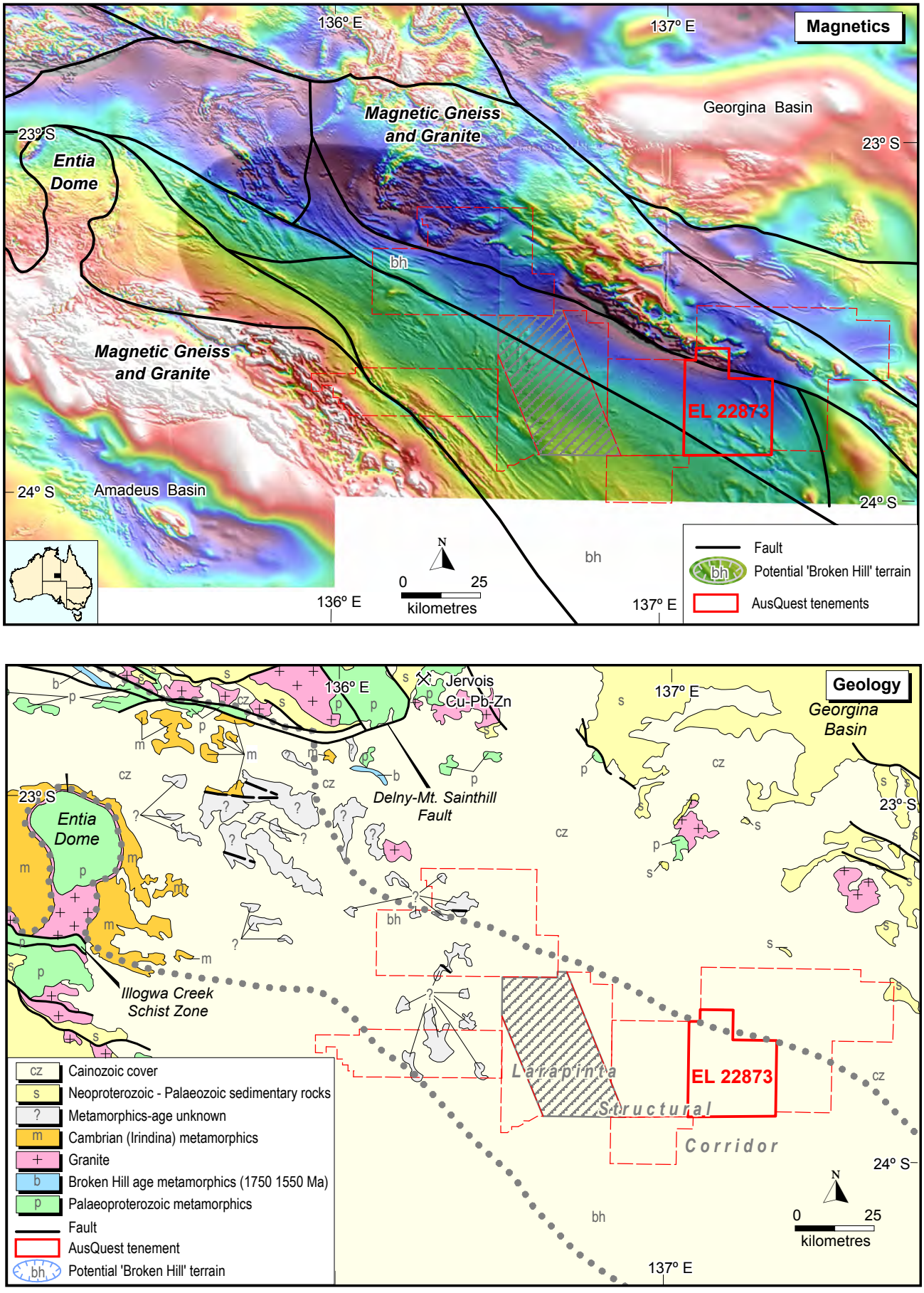

Figure 2 Regional geology and magnetics of the eastern Arunta Province

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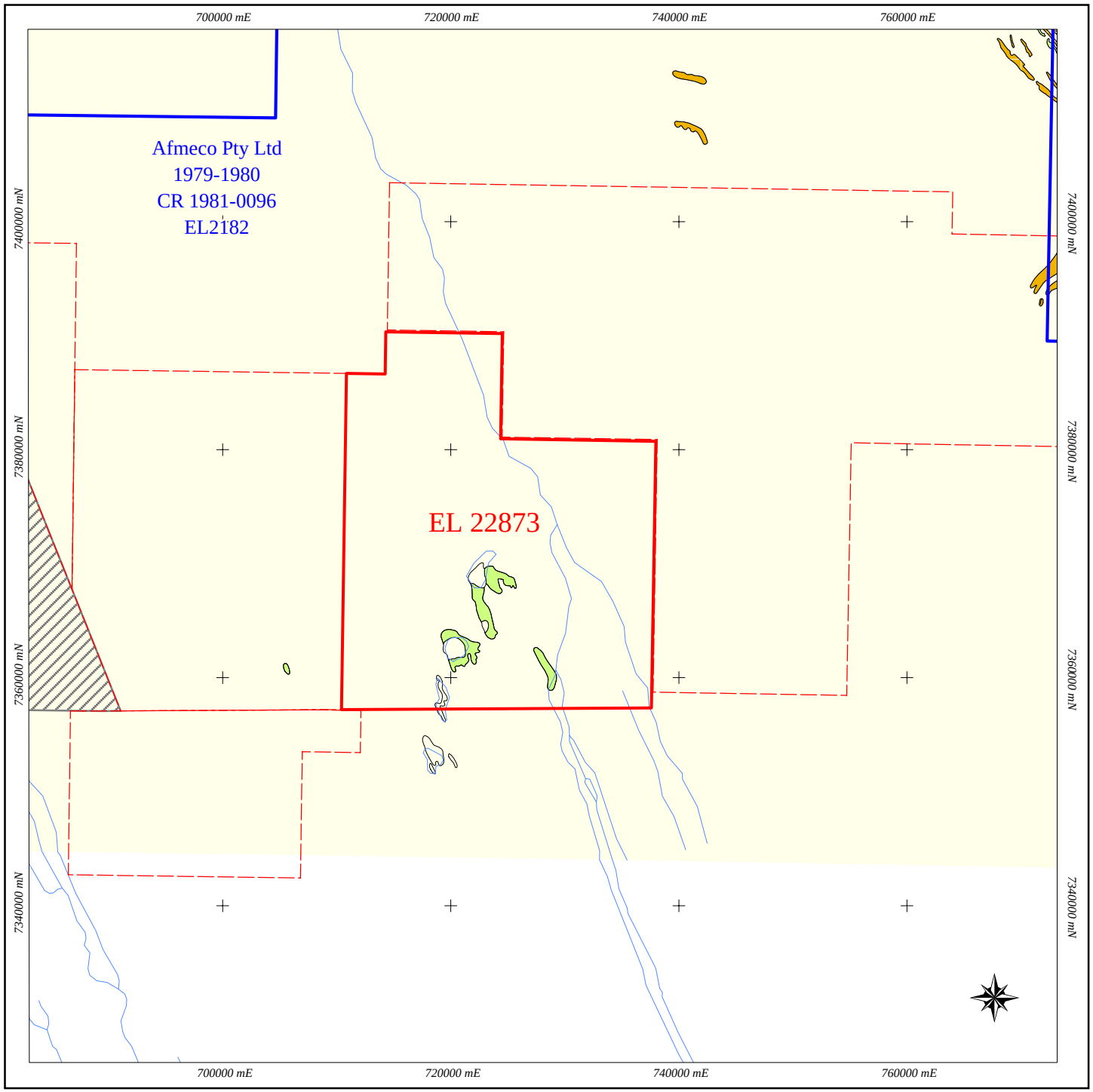


track

drainage

Historical Tenement

Relinquished Tenement

Other AusQuest tenements

Quaternary

Jurassic to Cretaceous
(De Souza Sandstone)

Late Proterozoic sedimentary rocks

Figure 3

Plenty River

Previous Exploration

EL 22873

10 0 10

kilometres

Scale: 1:500,000

MGA zone 53 (GDA94)

AQ_07031

6.0 PLENTY RIVER GEOLOGY

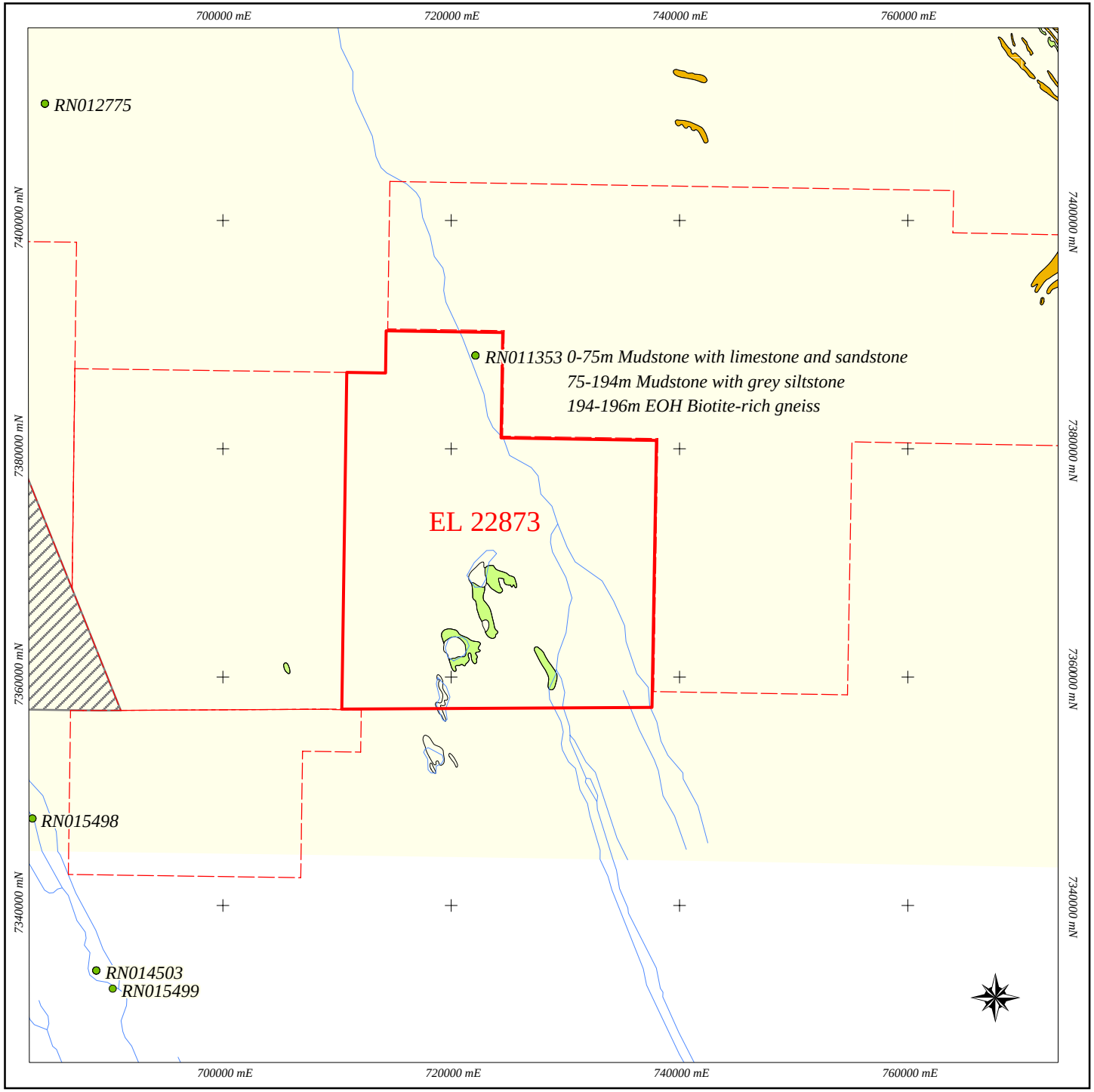
Regionally, AusQuest's block of titles and applications at Plenty River, straddles a prominent WNW-ESE structural corridor (the Larapinta corridor of Figure 2) as defined in aeromagnetic and gravity data. The exposed part of this corridor mainly comprises supracrustal Neoproterozoic to Cambrian metamorphic rocks of the Irindina package, structurally emplaced between Palaeoproterozoic basement rocks (Mawby, 2000; Buick *et al.*, 2001; Pietch, 2001). The high temperature - high pressure metamorphic event which affected the Irindina rocks in this region is of Ordovician age (Mawby *et al*., 1999), and the rocks include pelitic, psammitic and calc-silicate metasediments and mafic lithologies. This rock assemblage is somewhat similar in (compositional) character to the Cambrian rocks to the northeast of Broken Hill.

Stratigraphy of the Irindina package is well exposed in the Harts Range, and extends eastward into areas of poor exposure to the west of AusQuest's block of titles. Current mapping (Illogwa Creek 1:250 000 sheet), however, does not correlate outcrop in and at the margins of AusQuest's western titles with recognised Irindina stratigraphy.

Further southeast, flat-lying sedimentary cover sequences blanket the metamorphic and igneous rocks of the Arunta Province to increasing depths. The thickest component of these cover sequences belongs to the Eromanga Basin, spanning an age bracket of Late Jurassic to Cretaceous. Thin remnants of a Tertiary sedimentary stratigraphy are patchily developed (or preserved) and Quaternary fluvio-aeolian unconsolidated sediment forms a veneer of dune-dominated cover in the Simpson Desert.

The local geology of EL 22873 is dominated by Quaternary longitudinal (NNW-SSE) sand dune and alluvial cover, wherein shallow erosional windows associated with salina systems expose older, consolidated sedimentary rocks (Figure 4; Hay River 1:250 000 sheet). These are mainly Cretaceous fine grained siliciclastic and carbonate rocks of the Eromanga Basin, with minor Tertiary siliciclastics. The area straddles Hay River and incorporates the claypans, salinas of Lake Caroline.

No Proterozoic or early Palaeozoic (basement) rocks are exposed in EL 22873, the nearest exposures of such rocks being about 30 km to the northeast and north. These are mapped (Bureau of Mineral Resources, 1985) as Neoproterozoic clastic sedimentary rocks of the Georgina Basin.



water bore

track

drainage

Relinquished Tenement

Other AusQuest tenements

Quaternary

Jurassic to Cretaceous
(De Souza Sandstone)

Late Proterozoic sedimentary rocks

Figure 4

Plenty River

Geology & Water Bores

EL 22873

10 0 10

kilometres

Scale: 1:500,000

MGA zone 53 (GDA94)

AQ_07031

7.0 EXPLORATION RESULTS

The only exploration activity carried out was a desk-top evaluation of available geological and geophysical and data. This brought together the geological mapping (Illogwa Creek, Hay River, Hay River - Mount Whelan Special, Hale River and Simpson Desert North 1:250 000 scale sheets) and airborne magnetics and ground gravity surveys of the Northern Territory Geological Survey (NTGS) and Geoscience Australia (and its predecessors), and geological logs of water bores (from the Database of the Natural Resources Division, NT Department of Infrastructure, Planning and Environment).

The recent (2001) Eromanga survey of the NTGS extended detailed aeromagnetics coverage through EL 22873, providing a limited basis for both extrapolating and interpreting geology. Uncertainties about the age and affinities of the limited outcrops to the northwest notwithstanding (Sections 4 and 6), areas with similar magnetic character to Broken Hill can be identified (Figure 2). A belt of subdued (smooth) magnetic character containing some linear anomalies (perhaps representing mafic layers, BIF, or refolded thin shear zones) as at Broken Hill (Stevens, 1999, Maidment *et al*., 2000) does appear to extend from the northwest through the area (Figure 5)

However, water bore logs of hole RN 011353 (Figure 4), in the northeastern corner of EL 22873 reveal 194 m of cover above gneissic basement. Taken in conjunction with similar data from the more numerous bores along Plenty River to the west, where depth to crystalline (?early Palaeozoic) basement increases southward, cover depths offer little scope for using airborne EM to identify basement conductors. Such conductors are the commonly the main geophysical manifestation of massive sulphide deposits. Other available geophysical prospecting techniques are considered either too costly for regional application (eg. Ground EM), or too ambiguous to interpret (airborne gravity gradiometer).

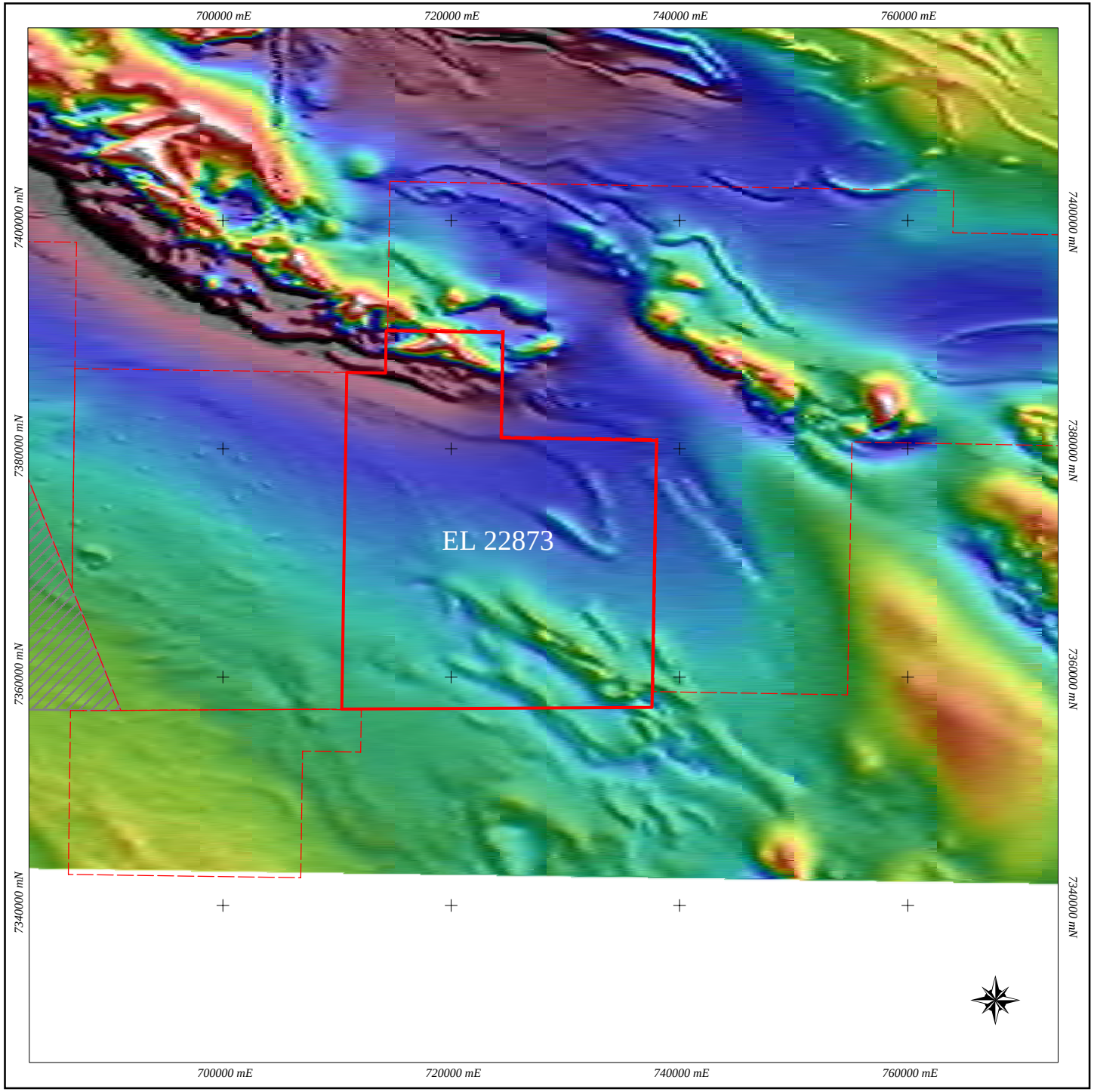
The Eromanga aeromagnetics survey, which revealed a field of dipolar aeromagnetic anomalies to the west, does not suggest any persistence of that field into EL 22873.

8.0 REHABILITATION

No rehabilitation was required as no field work was undertaken on EL 22873.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The southward deepening overburden of the Eromanga Basin and Tertiary/Quarternary cover sediments beyond the 194 m of the water bore near the northeastern edge of EL 22873, indicates that airborne EM is unlikely to be a useful survey tool. This leaves any potential target stratigraphy without a method of efficient, relatively unambiguous, direct testing for massive sulphide. The EL also lies outside (east of) the field of dipolar aeromagnetic anomalies, which may be prospective for kimberlite/lamproite hosted diamond. For these reasons the title has been relinquished.



Relinquished Tenement

Other AusQuest tenements

Figure 5

Plenty River

Aeromagnetics Image

EL 22873

10 0 10

kilometres

Scale: 1:500,000

MGA zone 53 (GDA94)

AQ_07033

10.0 REFERENCES

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