ELKEDRA DIAMONDS NL

Altjawarra Craton Diamond Project

Partial Relinquishment Report for period ending November 29, 2004

EL 23202 (Marqua)

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Map Sheets:
1: 250,000: Tobermory (SF53-12); Hay River (SF53-16)

1:100,000: Tarlton (6252); Marqua (6352); Mount Barrington (6351)

Copy To: NTDBIRD, Darwin, Northern Territory
Elkedra Diamonds NL Perth library

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Appendices:

File number	File Description	Digital Data File name
Appendix 1	Surface sample data	EL23202_SurfaceSamples_Locations.xls EL23202_SurfaceSamples_Geochemistry.xls
Appendix 2	Library Codes	Library_Codes.xls

1 INTRODUCTION

Exploration License EL 23202 is located on the Tobermory (SF53-12) and Hay River (SF53-16) 1:250,000 sheets in central Northern Territory (Figure 1). This report details all work carried out on the relinquished portion of the tenement up to November 29, 2004 by Elkedra Diamond NL.

2 CONCLUSION

Processing and interpretation of relevant portions of the Huckita East survey did not identify any discrete aeromagnetic anomalies of interest with respect to kimberlite exploration. Soil geochemistry samples also did not report. The relinquished portion of the tenement ranked low priority with respect to diamond exploration and no further work is currently warranted by Elkedra.

3 GEOLOGICAL SETTING

3.1.1 Regional Geology

The Altjawarra diamond project is located on the North Australian Craton, which represents an amalgamated terrain that was consolidated around 1,800 Ma. From a diamond exploration perspective, the significance of the North Australian Craton is that it hosts all of Australia's diamond mines to date including the recently discovered diamondiferous Merlin kimberlites located on the eastern portion of the North Australian Craton. Of particular importance is the age of the Merlin pipes, which have been dated as Devonian (~380 Ma). Elkedra Diamonds are targeting this same kimberlite event, or younger, in the southern Georgina Basin located south of the Merlin field.

The project area incorporates several kilometers of Cambro-Ordovician platform sediments of the southern Georgina Basin, which wholly veneer a basement continental block referred to as the Altjawarra Block. The southern Georgina basin and the underlying Altjawarra Block in particular, are associated with a zone of anomalously thick lithosphere extending to at least 200km depth as recognized from recent seismic tomography studies (Kennett, 1997; Van der Hilst *et al.*, 1998; Debayle and Kennett, 2000). The geophysical data highlight the area as highly prospective for the emplacement of diamond-bearing kimberlites.

3.2 Tenement Geology

The tenement is located along the southern margin of the South Georgina Basin. Principal underlying units include the Cambrian-Ordovician Tomahawk and Nimarro Formations composed of intercalated sandstone, limestone, and seams of glaucontic siltstone. The Palaeozoic units are overlain by younger Tertiary to Quaternary lateritic sands.

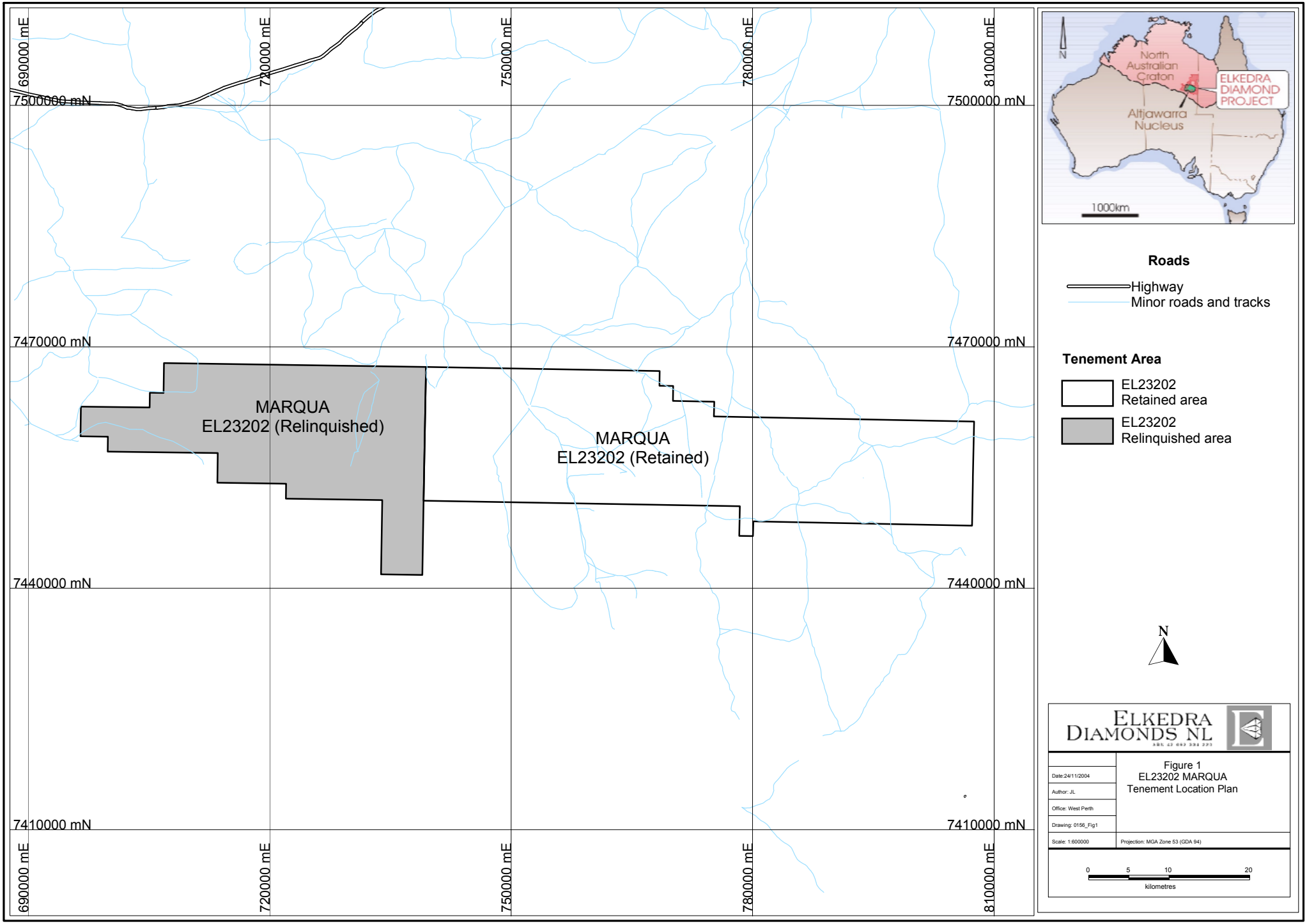
4 EXPLORATION COMPLETED

Exploration activities undertaken include:

1) Processing and targeting for aeromagnetic anomalies from the Huckita East survey
2) Soil sampling for geochemical analysis.

4.1 Aeromagnetic Interpretation

All aeromagnetic interpretation and processing were undertaken by Dr. Duncan Cowan of Cowan Geodata Services, Perth.


690000 mE
720000 mE
750000 mE
780000 mE
810000 mE
7500000 mN
7470000 mN
7440000 mN
7410000 mN
MARQUA
EL23202 (Relinquished)
MARQUA
EL23202 (Retained)
N
North Australian Craton
ELKEDRA DIAMOND PROJECT
Altjawarra Nucleus
1000km
Roads
Highway
Minor roads and tracks
Tenement Area
EL23202
Retained area
EL23202
Relinquished area
N
ELKEDRA DIAMONDS NL
Figure 1
EL23202 MARQUA
Tenement Location Plan
Date:24/11/2004
Author: JL
Office: West Perth
Drawing: 0156_Fig1
Scale: 1:600000
Projection: MGA Zone 53 (GDA 94)
0 5 10 20
kilometres

The aeromagnetic, were windowed out of the Huckita East survey. The windowed area was initially analyzed by running the "Smart" filter program of Cowan Geodata Services. The filter is a simple pattern recognition technique developed by Cowan Geodata Services. The program uses regression analysis between a window of the grid data and a typical model anomaly to identify roughly circular anomalies. The model data calculated is a full 3D vertical cylinder implementation. The method involves various inputs to the program including window size, model cylinder radius, top and bottom depths and amplitude response. The filter was run once to test response using a standard 200m diameter cylindrical model with a 30m depth, 400m grid window, and 25-200nT amplitude range.

Further data enhancement and preliminary kimberlite target screening was later undertaken in a smaller area referred to as the central craton area using a combination of techniques which included:

- 1D Wavenumber filtering
- 2D Euler deconvolution depth calculation
- 2D Werner deconvolution depth calculation
- Modelling and inversion of individual anomalies

The focus was on identifying possible kimberlite targets in the presence of significant intrasedimentary background noise due to maghemite channels, areas of ferricrete, clay-pans and sinkholes and cultural sources. The altimetric dtm and radiometric data were used to assist in anomaly screening. Identifying possible kimberlite magnetic anomalies in an area of extensive drainage and palaeosurface related magnetic anomalies is difficult due to a high degree of anomaly overlap as well as interference from anomalies due to shallow basement rocks. The relatively wide line spacing limits spatial resolution of small sources as small kimberlites located between flight lines may not be detectable or produce only weak magnetic anomalies with magnetic attributes similar to sinkholes etc.

No anomalies were identified from the aeromagnetic data within the relinquished area.

4.2 Surface Sampling

4.2.1 Soil Sampling

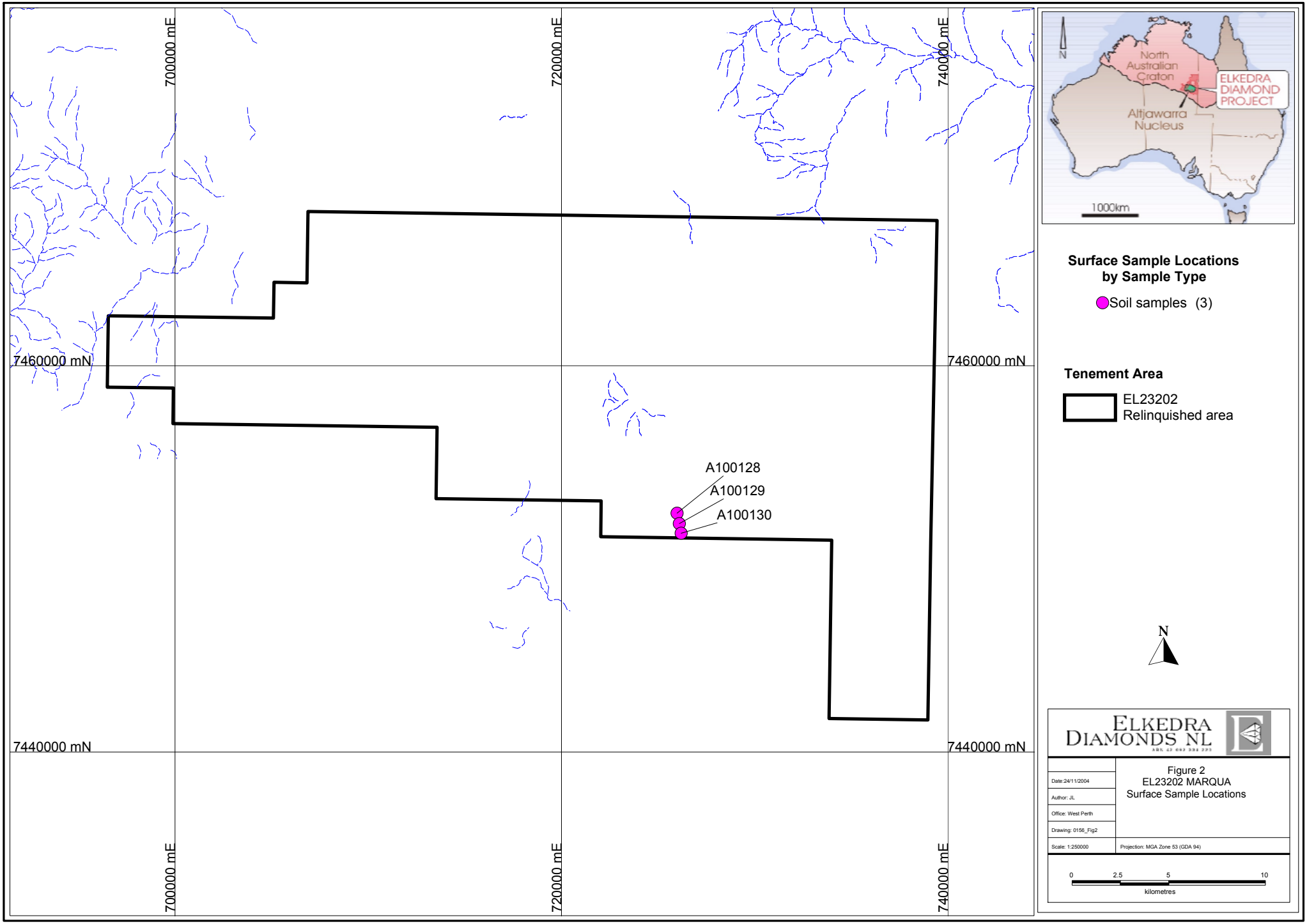
Three soil samples were collected as part of a NW-SE geochemical traverse at the southern boundary of the relinquished portion of EL23202 (Figure 2; Appendix 1). Samples were sieved on-site to -200um.

5 LABORATORY RESULTS

5.1 Geochemistry

The soil samples were submitted to Genalysis for analysis. Multi-element work was completed using a four acid digest with MS or OES finish and Au, Ag and Pd were analysed by bulk leach extractable gold.

The results were unremarkable.


700000 mE
720000 mE
740000 mE
7460000 mN
7440000 mN
A100128
A100129
A100130
N
North Australian Craton
ELKEDRA DIAMOND PROJECT
Altjawarra Nucleus
1000km
Surface Sample Locations by Sample Type
Soil samples (3)
Tenement Area
EL23202
Relinquished area
N
ELKEDRA DIAMONDS NL
Figure 2
EL23202 MARQUA
Surface Sample Locations
Date:24/11/2004
Author: JL
Office: West Perth
Drawing: 0156_Fig2
Scale: 1:250000
Projection: MGA Zone 53 (GDA 94)
0 2.5 5 10
kilometres

6 REFERENCES

Debayle, E. and Kennett, B.L.N. (2000) The Australian continental upper mantle: Structure and deformation inferred from surface waves. *Journal of Geophysical Research*, 105B11, 25423-25450.

Kennett, B.L.N. (1997) The mantle beneath Australia. *AGSO Journal of Australian Geology & Geophysics*, 17(1), 49-54.

Van der Hilst, R.D., Kennett, B.L.N. and Shibutani, T (1998) Upper mantle structure beneath Australia from portable array deployment. In: J. Braun et al, editors. *Structure and Evolution of the Australian Continent*. 39-57.