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EL 3397

YELTACOWIE

ANNUAL AND FINAL REPORTS TO LICENCE SURRENDER FOR THE PERIOD 19/8/2005 TO 19/2/2010

Submitted by
Southern Cross Resources Australia Pty Ltd / Uranium One Australia Pty Ltd
2010

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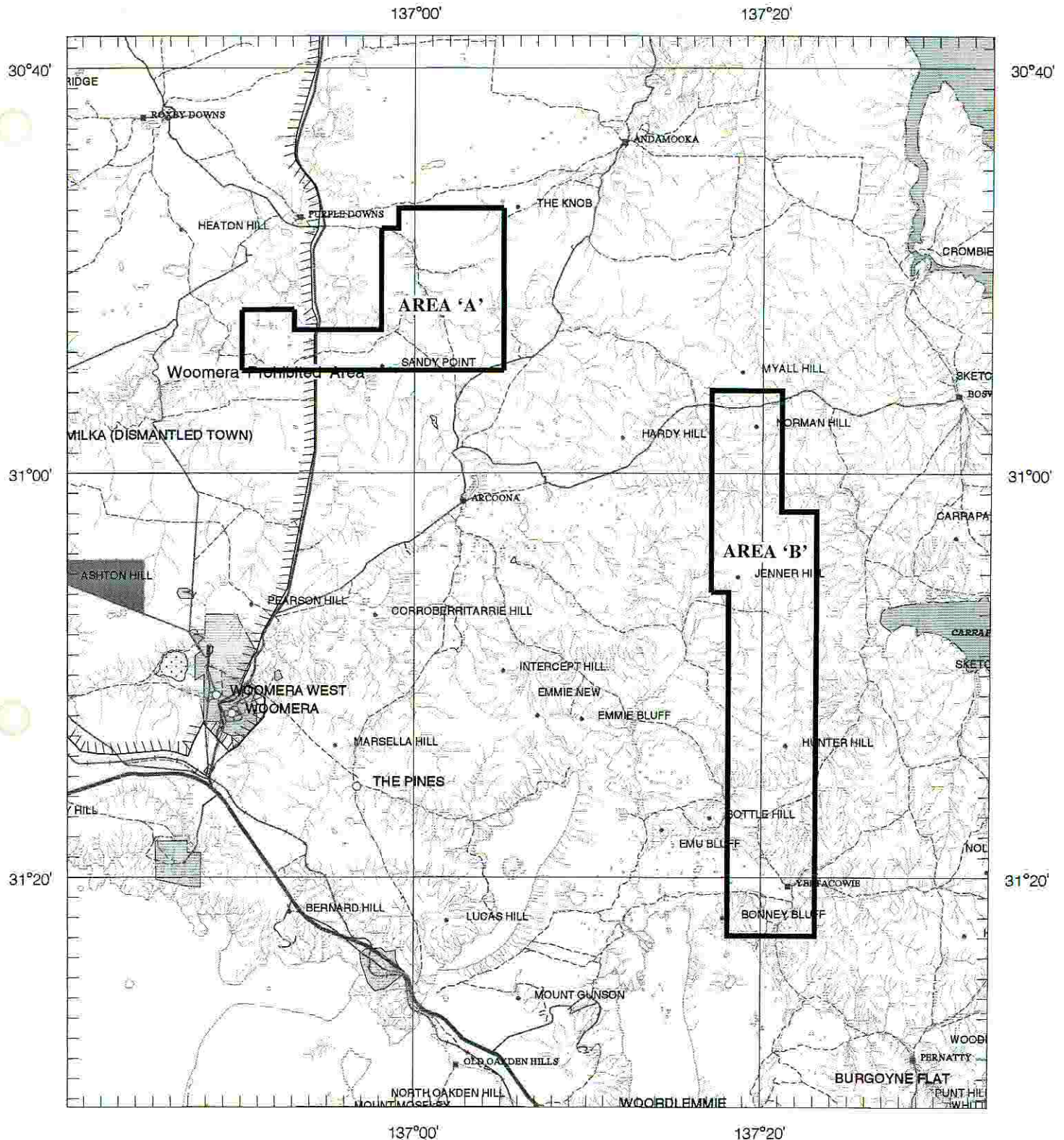
Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

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Facsimile: (08) 8204 1880



Government of South Australia
Primary Industries and Resources SA

SCHEDULE A



SCALE 1: 500 000
 KILOMETRES 10 0 10 20 30 40 50 KILOMETRES
 LICENCE GRANTED IN : DATUM AGD66



APPLICANT : **SOUTHERN CROSS RESOURCES AUSTRALIA PTY LTD**

FILE REF : **907/04**

TYPE : **MINERAL ONLY**

AREA : **609 km² (approx.)**

1:250000 MAPSHEETS : **ANDAMOOKA TORRENS**

LOCALITY : **YELTACOWIE AREA - Approximately 140 km north of Port Augusta**

DATE GRANTED : **19-Aug-2005**

DATE EXPIRED : **18-Aug-2006**

EL NO : **3397**

Uranium One Australia Pty Ltd

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10 April 2007

The Director
Mineral Resources
PIRSA
PO Box 1671
SA 5001

Attention Mr. George Kwitko

RE: EL 3397 "Yeltacowie" Annual Report for the period ending 15 August 2006

Dear George,

This letter is submitted in lieu of an Annual Technical Report for EL 3397 which Uranium One (formally known as Southern Cross Resources Australia Pty Ltd) has held for one year.

During the reporting period no fieldwork was undertaken. Exploration work has comprised literature reviews, data compilation, reprocessing of geophysical datasets and examination of historical cores drilled in the broader area. Uranium One is targeting unconformity-style uranium mineralisation and to a lesser degree IOCG mineralisation within the Carriwerloo Basin and the underlying basement. Conventional exploration tools such as electro-magnetics are unlikely to be able to see through conductive, highly saline groundwater so alternative targeting methods need to be devised. With the assistance of a PACE 3 subsidy Uranium One is conducting orientation work trialling different geophysical methods including SEARCH IP and gravity and drilling one deep core hole on the Eyre Peninsular an area which is considered to be similar to the Stuart Shelf. Once this work has been successfully completed an appropriate exploration programme will be devised.

Total expenditure on EL 3397 for the period ending 15 August 2006 was \$16,000. This expenditure relates to regional data compilation, reprocessing of existing geophysical datasets and associated administration and management costs.

If you have any queries please do not hesitate to contact me.

Yours sincerely,

Colin Skidmore
Vice President Exploration

Directors: Gregory Allan Cochran • John MacKenzie Sibley • Rachel Jane Rees
ABN: 15 069 420 462



29 July 2009

Records Officer
Mineral Tenements
PIRSA
GPO Box 1671
ADELAIDE SA 5001

Dear Sir/Madam

EL 3397 Yeltacowie Annual Technical Report for the year ending 18/8/2008

During the third year of tenure no field work was undertaken.

As no new technical data were acquired during the period, no formal report will be submitted.

Expenditure on the tenement for the period 19 August 2007 to 18 August 2008 was \$26,000.
Expenditure details have been provided in the relevant Summary Reports for that year.

Please contact me on 08 8414 3352 or 0415 397 870 if you require additional information.

Yours sincerely



Teena Coppin
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TMS ✓

M I N E R A L T E N E M E N T S E R V I C E S

19 January 2010

ABN 68 593 203 550

Records Officer
Mineral Tenements
PIRSA
GPO Box 1671
ADELAIDE SA 5001

Dear Sir/Madam

**EL 3397 Yeltacowie Annual Technical Report for the year ending
18/8/2009**

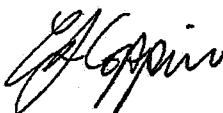
During the fourth year of tenure no field work was undertaken.

As no new technical data were acquired during the period, a formal report
will not be submitted.

Expenditure on the tenement for the period 19 August 2008 to 18 August
2009 was \$18,657. Expenditure details have been provided in the
relevant Summary Reports for that year.

Please contact me on 08 8414 3352 or 0415 397 870 if you require
additional information.

Yours sincerely



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MERFF

R2010/00012



TMS ✓



STUART SHELF PROJECT
SOUTH AUSTRALIA

EL 3397 Yeltacowie

FINAL REPORT

For the Period 19 August 2005 to 17 February 2010

Prepared by:

Uranium One Australia Pty Ltd

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CONTENTS

1. SUMMARY	3
2. KEYWORDS	3
3. INTRODUCTION.....	4
3.1 TENEMENT STATUS.....	4
3.2 LAND ACCESS AND NATIVE TITLE	4
4. LOCAL GEOLOGY AND EXPLORATION RATIONALE.....	6
5. PREVIOUS EXPLORATION.....	9
6. EXPLORATION POTENTIAL AND TARGETING.....	10
7. WORK COMPLETED	11
8. PROJECT EXPENDITURE	12

FIGURES

FIG 1	MAP SHOWING LOCATION OF URANIUM 1 STUART SHELF TENEMENTS
FIG 2	MAP SHOWING EL3397 AND PROXIMITY TO WOOMERA PROHIBITED AREA
FIG 3	RELATIONSHIP BETWEEN HILTABA GRANITES AND GAIRDNER DYKE SWARM
FIG 4	GENERALISED GEOLOGY OF THE STUART SHELF
FIG 5	LOCATION OF GRAVITY SURVEY POINTS
FIG 6	GRIDDED AND MERGED DATA

TABLES

TABLE 1	TOTAL EXPENDITURE FOR THE LIFE OF EL 3397	12
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DIGITAL DATA FILES

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 EL3397_2010_F_02_YELTACOWIENTH.CSV
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1. SUMMARY

This is a final report for activities carried out on the company's Yeltacowie tenement EL 3397 between 19 August 2005 and 17 February 2010, the date of surrender.

Technical work carried out on the tenement comprised:

- Review of all previous exploration
- A gravity survey carried out by Daishsat Geodetic Surveyors
- GIS analysis

The tenement was surrendered on 19 February 2010 as a result of changes in corporate strategy.

2. KEYWORDS

Uranium exploration, hydrothermal fluids, IOCGU deposits, magnetic anomalies, gravity anomalies, exploration model, basement, Mesoproterozoic, Paleoproterozoic, Neoproterozoic, Tapley Hill Formation, Pandurra Formation, Gawler Range Volcanics, Gairdner Dyke Swarm/Gairdner Dolerite, Whyalla Sandstone, Gawler Craton, Cariewerloo Basin, Stuart Shelf, diamond drilling.

3. INTRODUCTION

3.1 TENEMENT STATUS

EL 3397 was granted on 19 August 2005 initially for a period of one year and then renewed annually to 18 August 2010. It was surrendered on 19 February 2010.

3.2 LAND ACCESS AND NATIVE TITLE

Access from Adelaide and Port Augusta is via the sealed Stuart Highway, then graded and ungraded station tracks. Four-wheel drive vehicles are able to easily access the area at most times.

There are two overlapping Native Title Claims that cover the tenement. Part 9b negotiations, including the signing of a formal agreement with the Barngarla Group, were completed.

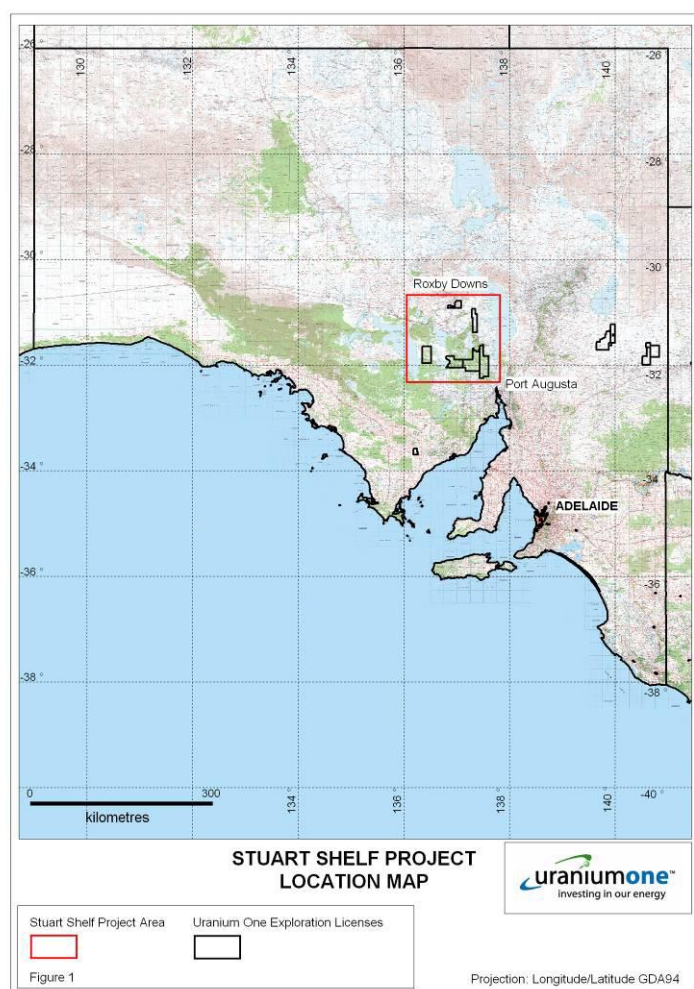


Figure 1 : Map showing location of Uranium One Stuart Shelf tenements

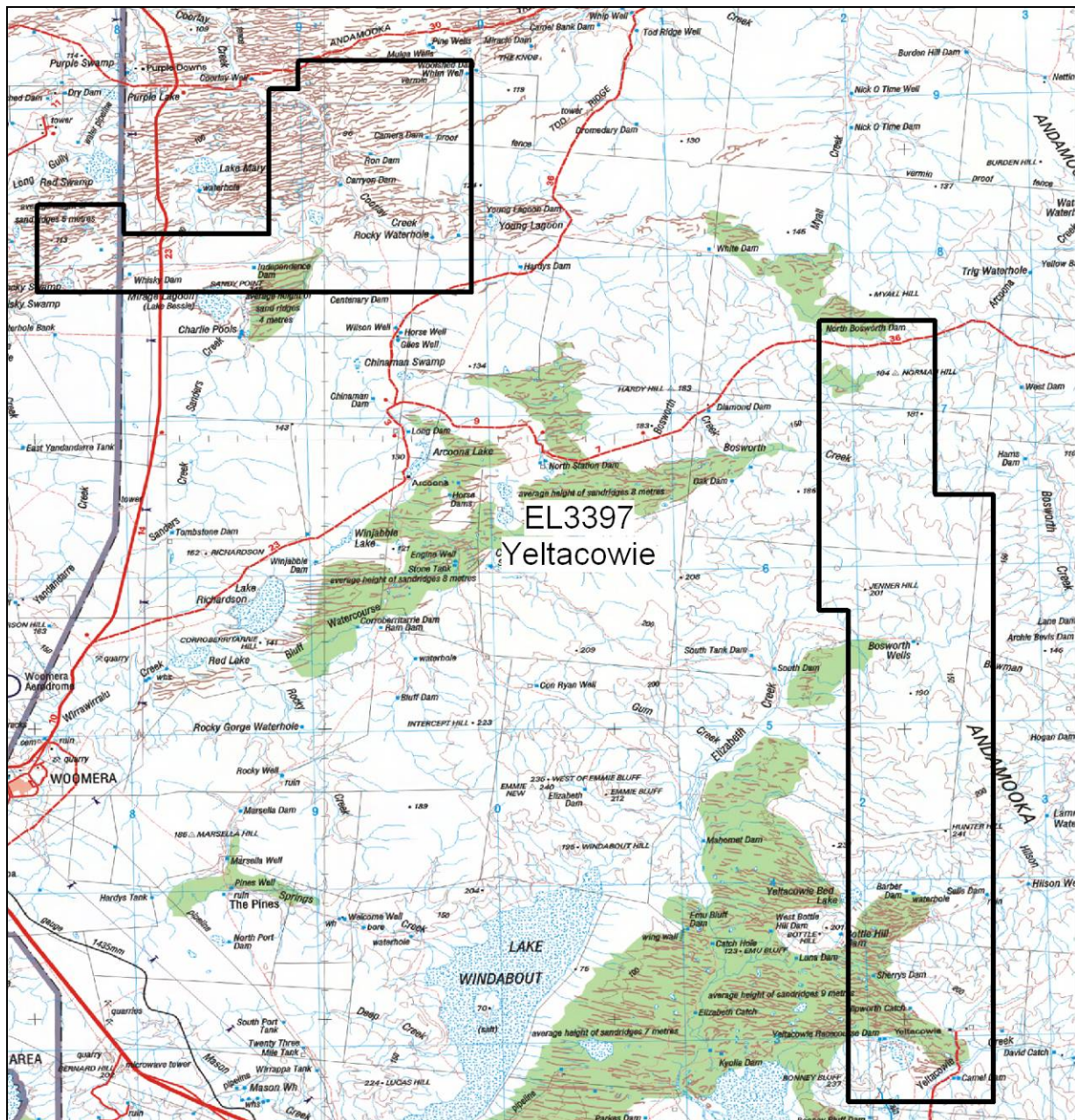


Figure 2: Map showing location of EL 3397 in relation to Woomera Prohibited Area

4. LOCAL GEOLOGY AND EXPLORATION RATIONALE

Within the Stuart Shelf the pre-eminent target is an Olympic Dam analogue. The Shelf sediments are primarily considered a cover sequence and not a target in themselves. The targets are strongly iron metasomatised Hiltaba Suite intrusive/extrusive complexes that will have co-incident or near co-incident magnetic and gravity anomalies. However, because the Carrapateena discovery was associated with relatively low order geophysical anomalism, some companies are pursuing a low order anomaly strategy.

Depth of cover is a critical economic element to the development of any deposit. Some companies are therefore targeting the shallower and potentially uplifted areas to explore as these will hopefully have less than 500 metres of cover. Such areas are in the vicinity of Olympic Dam (i.e. Acropolis, Wirrda Well), Oak Dam and the Pernatty Uplift/Culmination at Mt Gunson. Where the cover is deeper than 400 metres, mining may be unprofitable because of the additional capital cost.

Depth to basement studies are based on the limited number of holes that have penetrated the cover (and that are on open file) and geophysical interpretation. As such they are open to interpretation.

A few companies are starting to consider the uranium potential of the sediments of the Cariewerloo Basin and Stuart Shelf. However, very little drilling (and quite shallow at that) is known to have been directed at such targets. To that extent, the entire region is under-explored.

The Pandurra Formation, which is the main stratigraphic formation of the Cariewerloo Basin, has many similarities to the Athabasca Basin of Canada, where high grade uranium deposits have been discovered since the 1950s (see below).

The Basin is underlain by Gawler Range Volcanics which overlie the Gawler Craton suite of metamorphics. All three geological entities have been intruded by the Gairdner Dyke Swarm in the central eastern part of the Craton (Figure 1).

The emplacement of dykes with a northwest trend has been linked to a major northeast-southwest-trending crustal extension event consistent with the onset of rifting, early graben development and basic volcanism during the early tectonic evolution of the Adelaide Geosyncline.

The dyke swarm is poorly understood, visible only from magnetic surveying and does not outcrop. Since the dykes are subvertical they are only rarely intersected. The dykes have a very widespread distribution within the Craton (in excess of 600km x 100km) and are individually of significant dimension (>30m x 10km). This suggests that they are fed by a large mafic source/batholith lying deep beneath the Craton that is quite unrelated spatially to the acid igneous Hiltaba Suite batholiths.

The dykes have the potential to:

- Tap and remobilise metal sources from within the crystalline basement
- Facilitate the transport of hydrothermal fluids from a deep crustal/mantle mafic source utilizing the same Basin-creating structures

- Provide a heat source to move the fluids and metasomatise the intruded sedimentary packages where pore space and reactive material is encountered. This has been observed in past drilling with respect to the Pandurra Formation.

Dykes similar to those of the Gairdner Dyke Swarm play an integral role in the migration and emplacement of the ore at Valhalla/Westmoreland, NW Queensland.

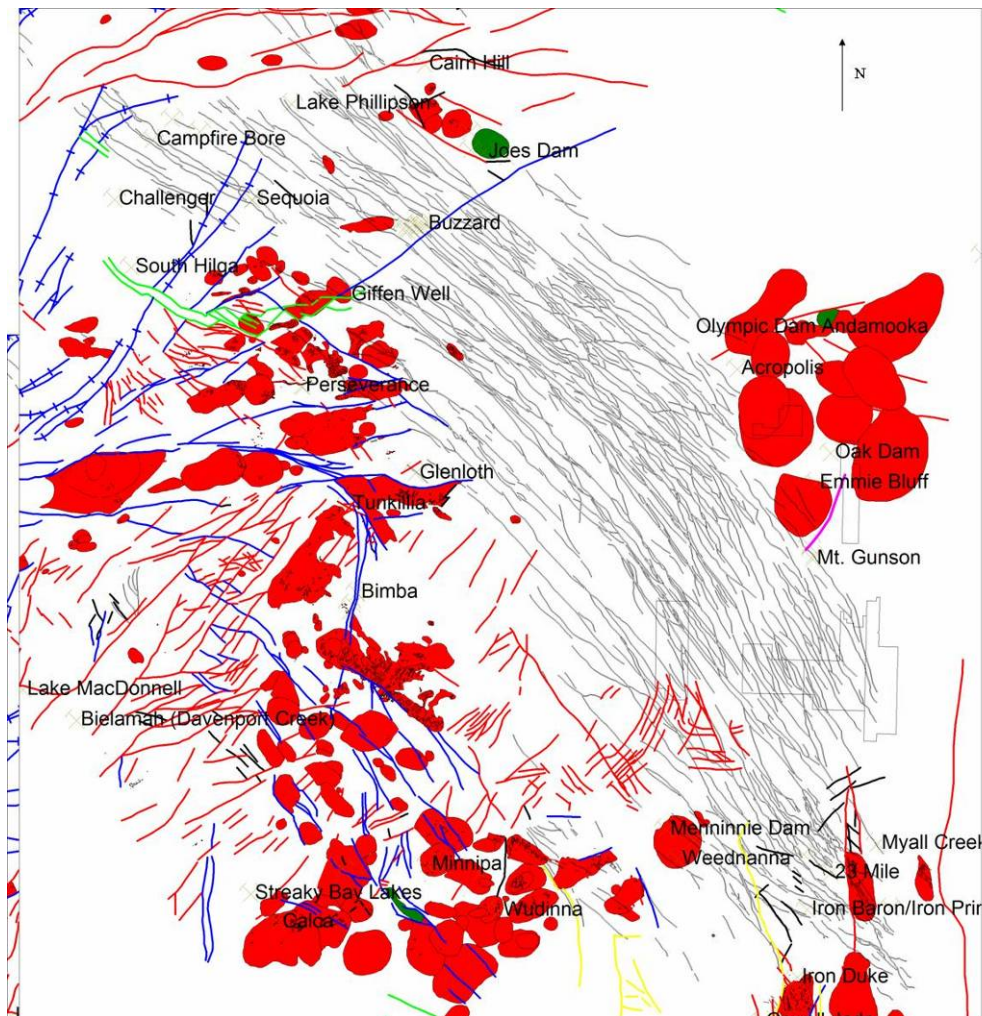


Figure 3: Gairdner Dyke swarm and Hiltaba Granites.

The combination of the following factors makes the Pandurra Formation a prime, but poorly tested, uranium target.

- Geological age and tectonic similarities between the Cariewerloo Basin and the Athabasca Basin
- Association of significant amounts of uranium and other heavy metals in pre Pandurra magmatic activity (Hiltaba Suite)

- Presence of uranium and carbonaceous units in the Gawler Craton Basement (Hutchison Group of Eyre Peninsula)
- Reasonable target depths (<500m)
- Potential for oxidising environment of the Pandurra Formation interfacing with a reducing fluids emanating from deep in the basement or mantle
- Both early and late deep structures to plumb as far as the lower crust and upper mantle and all that lies between
- Large number of mafic dyke intersections with the potential to remobilize uranium rich fluids
- The fine grained and reactive Tapley Hill Formation (Adelaidean) that occupies a position above the Pandurra has the capacity to both physically and chemically trap migrating ore fluids at the upper unconformity
- Drilling has intersected some Gairdner dykes that have metasomatised the surrounding sediment, demonstrating their capacity to be involved in ore forming processes

5. PREVIOUS EXPLORATION

In 1968-1970 Noranda carried out percussion drilling to seek shallow Pb-Zn mineralisation SE of Lake Dutton in the Woocalla Dolomite. A large sub-economic resource was delineated.

A number of companies have unsuccessfully explored for diamonds and kimberlites since the 1970s.

In the early 1970s Pacminex carried out rotary drilling in the search for copper in the Lake McFarlane area. Results were negative.

Shallow hammer drilling was completed in the 1970s by Abminco in a search for Mt Gunson style copper mineralisation at the base of the Whyalla and the top of the Pandurra Formations in the Yudnapinna area.

In 1977 Dampier Mining drilled one diamond drill hole to 154m (on EL 322) near a pair of Gawler Range Volcanics (GRV) outliers, to investigate stratiform base metal potential of the Adelaidean sediments. The drilling demonstrated that there was no Adelaidean and that the GRVs were overlain by Pandurra Formation. No mineralisation was intersected.

In the late 1970s Australian Selection explored within EL 301, where they sought stratiform copper mineralisation in the basal Neoproterozoic Tapley Hill Formation (THF). This comprised percussion drilling of aeromagnetic anomalies. No THF was found west of Lake McFarlane. All holes were radiometrically logged, revealing that the Pandurra Formation was found to be lithologically consistent throughout the area drilled.

In the early 1980s Afmeco explored EL 708 for IOCG style mineralisation by shallow drilling aeromagnetic and gravity anomalies on the eastern side of Lake Gairdner. None was discovered. There was no shallow pre GRV basement and the Pandurra Formation only contained background base metal and uranium values.

In March-April 2007, a helicopter supported gravity survey contracted by Uranium One was completed by Daishsat Geodetic Surveyors at 1 km station spacing. Results of the survey were reported in the two previous technical reports for the Stuart Shelf Project.

6. EXPLORATION POTENTIAL AND TARGETING

Most of Uranium One's Gawler Craton tenement holding consists of a large block of four tenements that cover the shallower parts of the Carriewerloo Basin - ELs 3398, 3399, 3400 and 3415. EL 3397 was situated to the north on the eastern basin margin and partly within the Woomera Prohibited Area

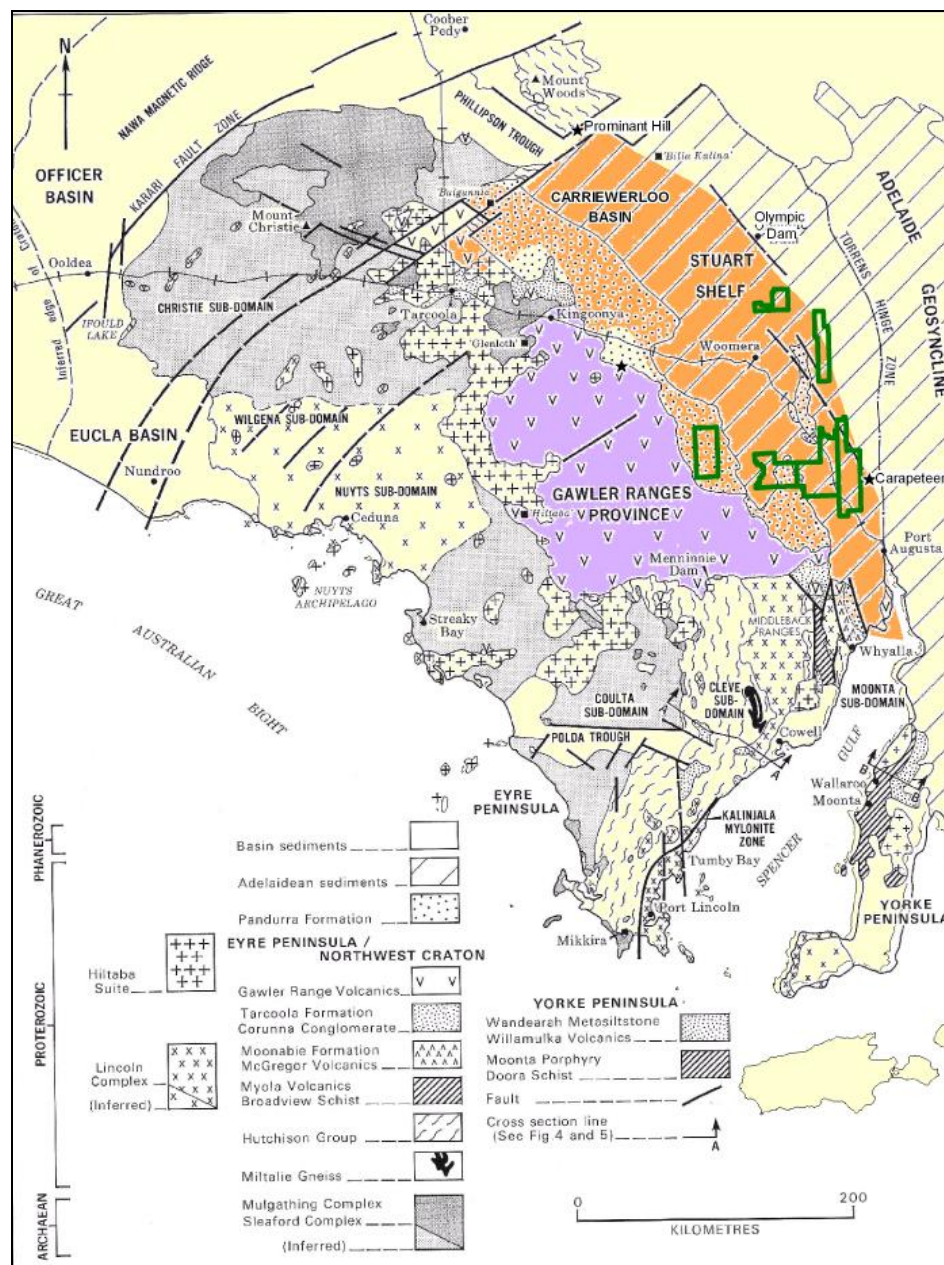


Figure 4: Generalised geology of the Stuart Shelf

7. WORK COMPLETED

During March and April 2007 Daishat Geodetic Surveyors completed a gravity survey over EL 2997. Figure 5 shows the location of gravity stations. 1,514 readings were collected across the entire tenement, infilling to a density of 400m x400m in the southern portion and 800m x800m on the northern portion. Gravity readings are included as digital data files.

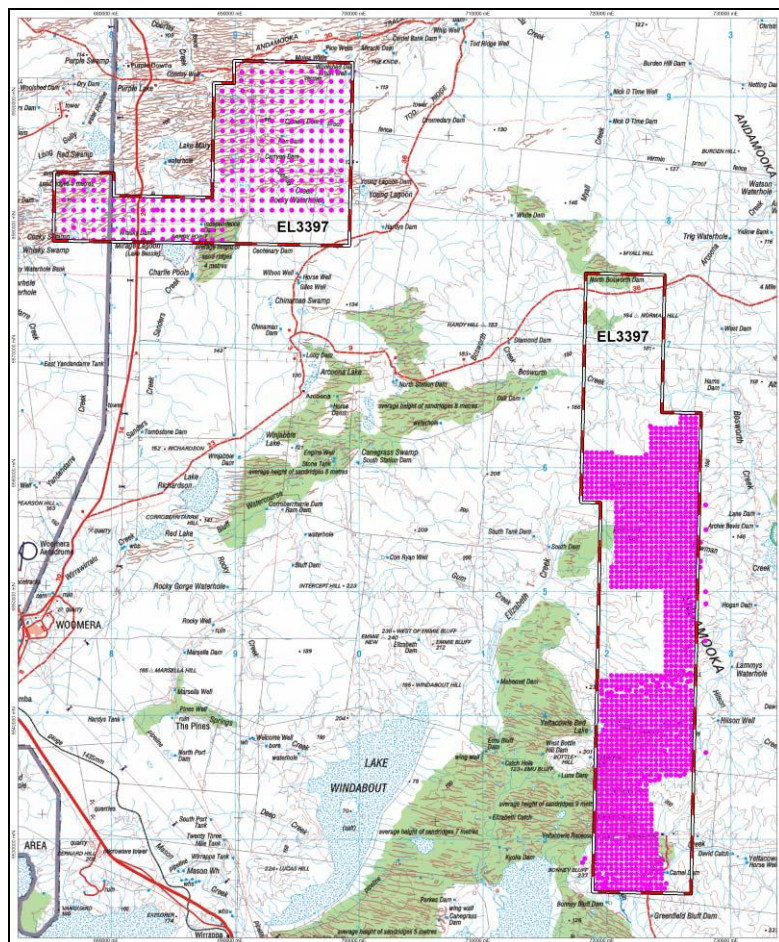


Figure 5: Location of gravity survey points

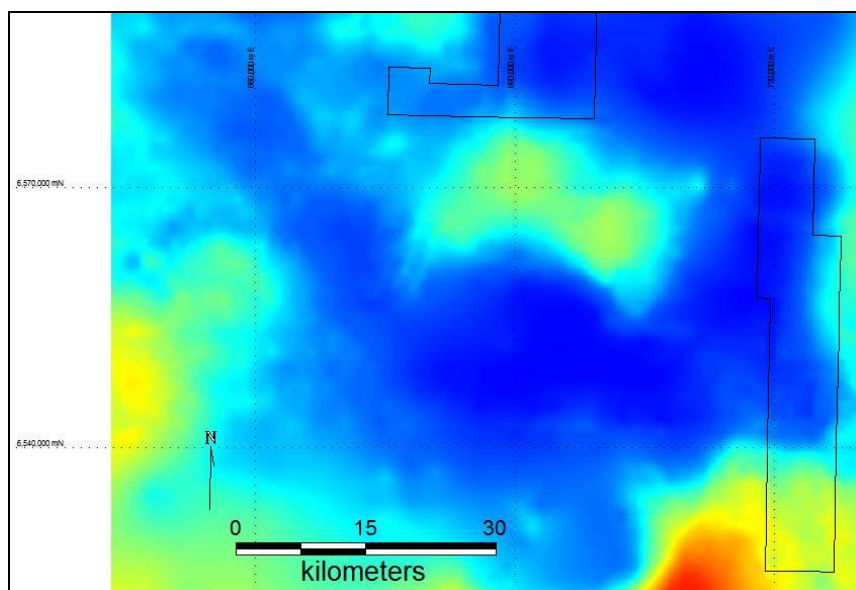


Figure 6: Gridded and merged data set

8 PROJECT EXPENDITURE

Table 1: Total expenditure for the life of EL 3397

Activity	Expense
Personnel	29,109
Tenement maintenance	6,615
Geophysics	181,600
Office and computing	9,000
Travel and accommodation	1,881
Administration and management	30,455
Total	258,660