Straits

Lake Torrens

EL4397

Annual Report for the period

10 December 2009 to 9 December 2010

Project Name:	**Lake Torrens**
Report Type:	**Annual Report**
Tenement:	**EL 4397**
Date:	**7 February 2011**
Holder(s):	**Uranium Exploration Australia Limited**
Operator:	**Straits Exploration (Australia) Pty Ltd**
Commodities:	**Gold, copper, Uranium**
Geographic Location:	**35km West of Parachilna – nearest town**
Map Sheets:	**1:250,000: Andamooka SH5312, Copley SH5409, Torrens SH5316 & Parachilna SH5413** **1:100,000: Scott 6436, Copley 6536, Woodforde 6435 & Parachilna 6535**

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1 EXECUTIVE SUMMARY

The Lake Torrens Project is a joint venture between Straits Exploration (Australia) Pty Ltd (Straits) and Uranium Exploration Australia Ltd (UXA).

EL 4397, "Lake Torrens" is located 35 km west of Parachilna in South Australia (Figure 1). The tenement is situated within the Andamooka SH53-12, Copley SH54-09, Torrens SH53-16 and Parachilna SH54-13 1:250,000 map sheets and covers 206 $km^{2.}$

Access to the tenement is via the sealed road from Port Augusta – Hawker – Parachilna, further tenement access is via station tracks on Nilpena Station.

EL3470 is located entirely within Lake Torrens National Park.

The primary exploration target within EL 4397 is iron-oxide copper gold uranium (IOCGU) style mineralisation as typified by Olympic Dam and Prominent Hill.

During the reporting period work completed included:

- A joint venture agreement between Straits and UXA on the 27th August 2010.
- Straits have compiled and reviewed existing data from UXA and Primary Industries and Resources South Australia (PIRSA).
- UXA gravity data has been compiled into a South Australian database
- 1:250,000 scale magnetics & gravity images were produced by Southern Geoscience over EL4397
- An application has been made for a renewal for EL4397, which expired on 9/12/2010.

2 INTRODUCTION

EL 4397, “Lake Torrens” is located 35 km west of Parachilna in South Australia (Figure 1). The tenement is situated within the Andamooka SH53-12, Copley SH54-09, Torrens SH53-16 and Parachilna SH54-13 1:250,000 map sheets and covers 206 $km^{2.}$

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The primary exploration target within EL 4397 is iron-oxide copper gold uranium (IOCGU) style mineralisation as typified by Olympic Dam and Prominent Hill.

Straits entered into a joint venture agreement over the Lake Torrens EL4397 with UXA on the 27th August 2010. The tenement was originally granted to UXA on 9 December 2010.

2.1 Location

EL4397, “Lake Torrens” is located approximately 35km west of Parachilna in South Australia (Figure 1). The tenement is situated within the Andamooka SH53-12, Copley SH54-09, Torrens SH53-16 and Parachilna SH54-13 1:250,000 map sheets and covers 206 $km^{2.}$

EL3470 is located entirely within Lake Torrens National Park.

2.2 Access

Access to the tenement is via the sealed road from Port Augusta – Hawker – Parachilna, further tenement access is via station tracks on Nilpena Station.

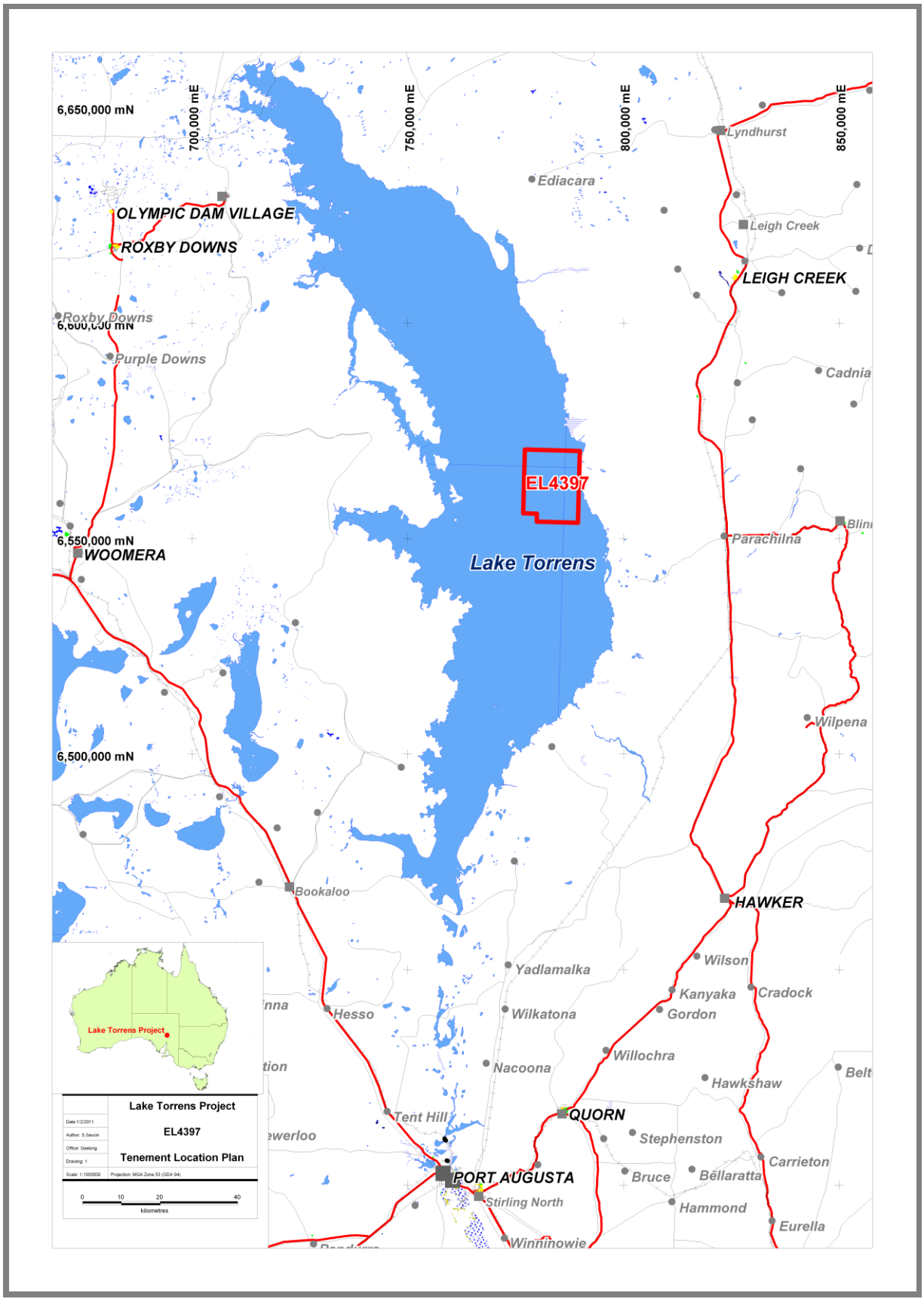

Figure 1: Tenement Location – EL4397

2.3 Physiography

The key outstanding physiographic features of the project area consist of Lake Torrens, and the Arcoona Plateau (Arcoona Ranges) to the west of the project area. The Lake is an endorheic saline rift lake and forms part of the same rift valley that includes Spencer Gulf to the south. It is 65 km wide by 240 km in length and an area of 5700 km2. It is approximately 34 m above sea level.

The floor of Lake Torrens is covered by soft brown gypseous silts with salt relatively absent or forming thin surface films to a few cm thick crusts. There are a number of springs aligned south-easterly from Andamooka Island that define an outlet for waters under pressure in aquifers below the lake floor.

The project is wholly within Lake Torrens National Park.

The climate of the region is considered semi-arid, with temperatures reaching a mean maximum of ~36˚C during summer and a mean maximum of ~17˚C during winter.

2.4 Native Title and Aboriginal Heritage

The area subject to Exploration Licence 4397 lies within an overlap area of the Kokatha and Barngarla claimant groups. The Kuyani people also have a significant interest in the area. The Kokatha Overlapping Claim Area is currently before the Federal Court of Australia for resolution. The case has been before the Court since 2004.

The South Australian Native Title Services (SANTS) reported to the Federal Court on 16 December 2008, that a Community meeting held in Port Augusta on 9 December 2008 had authorised new signatories to make the Kokatha Uwangara native title claim application and do all things necessary to achieve a native title determination.

EL4397 Lake Torrens is situated within Lake Torrens National Park. An Aboriginal heritage site card (number 6436-7237) was recorded over Lake Torrens on 27 June 2007 (Aboriginal Affairs & Reconciliation Division, Central Archives). The site card was amended in May 2008 to include Andamooka Island and 500m into the hinterland around the entirety of Lake Torrens. The site has been entered but has not been through the section 12 determination process to register it.

As a result EL4397 is completely covered by the recorded Site under the South Australia Aboriginal Heritage Act 1988; consequently access for exploration purposes is not permitted.

3 TENURE

EL 4397 Lake Torrens was granted to UXA on 10th December 2009 for a period of one year.

An application for a renewal has been submitted to PIRSA, at the time of writing the application is still pending.

Table 1: Tenement Details

Tenement	Grant Date	Expiry Date	Area
EL4397	10/12/2009	9/12/2010	206 sq. km

Straits entered into a joint venture agreement over EL4397 Lake Torrens with UXA on the 27th August 2010.

On the 18th November 2010 Uranium Exploration Australia Limited changed its name to UXA Resources Limited.

4 REGIONAL GEOLOGY

The Lake Torrens tenement lies within the Olympic Dam iron oxide copper gold (uranium) – "IOCG" province of the Stuart Shelf in central South Australia. The IOCG province is a Palaeoproterozoic and Mesoproterozoic tectonic and lithostratigraphic domain that extends for some 700 kilometres along the eastern margin of the Gawler Craton.

The Gawler Craton is separated from another cratonic block to the east, the Curnamona Province, by Neoproterozoic continental supercrustal rocks preserved in the early Palaeozoic Adelaide fold belt. The giant Olympic Dam IOCG deposit occurs beneath 300-400 metres of Neoproterozoic and Cambrian sedimentary rocks near the north eastern margin of the Gawler Craton. The basement near Olympic Dam is dominated by the youngest cratonic rock associations including the Gawler Range Volcanics and the broadly contemporaneous Hiltaba Suite "I" type granitoids.

The crustal architecture of the province is dominated by regional north west and north east trending major basement structures, the intersections of which appear to have acted as loci for IOCG mineralisation and hydrothermal fluid flow. There is a regional association of IOCG mineralisation with high level Hiltaba Granite / Gawler Range Volcanic magmatic events and a proximal association with near vent bi-modal volcanism and associated sedimentation, hydrothermal brecciation, intense iron metasomatism, sodium depletion, and alteration vectors involving amphiboles (chlorite), sericite, carbonate, haematite, K-feldspar and silica

The Stuart Shelf is bounded to the south by the uplands of the Gawler Range Volcanics and on the east by the Torrens Hinge Zone, which lies approximately along the western shore of Lake Torrens.

5 REVIEW OF PREVIOUS EXPLORATION

5.1 Regional

Western Mining Corporation (WMC) was active on the Stuart Shelf testing coincident magnetic and regional gravity anomalies attributed to potential stratiform sediment hosted copper mineralisation during the period 1974 to 1976. Minor to moderate copper mineralisation was defined from the early drilling prior to hole RD10 returning a potential economic intercept of 170 metres @ 2.12% Cu plus 0.58Kg/t U_3O_8 at Olympic Dam (OD). Ongoing resource drilling has now defined a resource of 7.7 billion tonnes @ 0.87% Cu, 0.29Kg/t U_3O_8, and 0.3g/t Au at Olympic Dam.

The Prominent Hill discovery, located 130 kilometres north west of Olympic Dam, was the next significant copper and gold discovery within the Olympic Dam Province albeit some 25 years after the OD discovery. The current Prominent Hill Breccia resource stands at 101million tonnes @ 1.5% Cu and 0.55g/t Au and the adjacent eastern "gold only" zone contains 21 million tonnes @ 1.2g/t Au.

Subsequent to the Prominent Hill Discovery, high grade copper-gold mineralisation has been defined at Carrapateena approximately 100 kilometres south of Olympic Dam and 45 kilometres south west of the Torrens Tenement (EL3195). The discovery hole, CAR002 returned a 167 metre intercept from 476 metres grading 1.9% Cu and 0.7g/t Au. Hole 50 has recently been reported as returning 905 metres @ 2.1% Cu and 1g/t Au and is the highest grade intersection on the prospect to date.

Exploration by Western Mining Corporation during the 26 year period after the discovery of OD also tested numerous coincident magnetic and gravity targets throughout their large tenement holdings. This resulted in the discovery of copper occurrences at various prospects including Acropolis, Wirrda Well, Oak Dam, Bopechee (Titan), Winjabbie and Emmie Bluff/Cane Grass.

More recent work by Geoscience Australia and PIRSA on their Regional Gawler Craton Project (Olympic Copper – Gold Province) included 3D inversion modelling of gravity and magnetic data, deep seismic traverses, chemical modelling, basement mapping, petrology and Hiltaba suite subdivision and the collection of potential field data. Key results from these surveys include;

- The crustal architecture is dominated by north west and north east trending major faults, some of which were important during mineralising and magmatic events around 1590Ma.
- There were 3 (~1850, 1740-1760 and 1570-1600Ma) tectonostratigraphic events in the Olympic Dam region.
- Geophysical modelling is consistent with north east dipping contacts between inferred Archean and Palaeoproterozoic basement units, intruded by pancake-like early Mesoproterozoic Hiltaba Granites.
- Two significant alteration types that are Characteristic of the Olympic Copper-Gold Province have been mapped and dated (~1570-1600Ma): High temperature magnetite bearing and low temperature haematite bearing alteration. Cu-Au mineralisation is better developed in haematitc alteration where the two alteration regimes are adjacent.

5.2 Tenement

There are no historic drill holes recorded in EL4397. The closest drillhole is MRD1, drilled by Western Mining Corporation (WMC) in 1982. MRD-1 is located 12.5km west of EL4397; it was drilled to a final depth of 918m, terminating within fine grained felsic volcanics.

WMC also drilled three holes (TD1, TD2 and TD3) centred on the strongest coincident gravity and magnetic anomalies during the period 1977 to early 1982, 25km northwest of EL4397 on EL4296.

TD2 intersected a metasomatic magnetite-quartz-haematite-Kfeldspar minor fluorite, carbonate altered and weakly brecciated sequence with chalcopyrite and pyrite veining, from the base of cover at approximately 500m to the bottom of the hole at 881m. The hole was highly anomalous in copper, with a maximum of 0.65% Cu and two significant zones of low grade copper with trace to weak uranium values. Holes TD1 and TD3 also intersected magnetite-haematite-Kfeldspar altered and metasomatised volcano sedimentary units.

6 WORK COMPLETED IN CURRENT YEAR

- A joint venture agreement between Straits and UXA on the 27th August 2010.
- Straits have compiled and reviewed existing data from UXA and Primary Industries and Resources South Australia (PIRSA).
- UXA gravity data has been compiled into a South Australian database
- 1:250,000 scale magnetics & gravity images were produced by Southern Geoscience over EL4397
- An application has been made for a renewal for EL4397, which expired on 9/12/2010.
- Straits are currently in the process of trying to negotiate access to EL4296 (The Torrens Project), which is also located on Lake Torrens, approximately 25km northwest of EL4397 (Figure 2). If access for exploration purposes can be achieved to EL4296, then this may also provide avenues for access for EL4397.

7 CONCLUSIONS AND RECOMMENDATIONS

Straits are currently in the process of trying to negotiate access to EL4296 (The Torrens Project), which is also located on Lake Torrens, approximately 25km northwest of EL4397. EL4296 is a joint venture between Straits & Kelaray Pty Ltd.

Access to EL4296 is denied due to Native Title and Heritage issues related to the Lake Torrens recorded site, Aboriginal heritage site card (number 6436-7237). As a result both

EL4296 & EL4397 are completely covered by the recorded Site under the South Australia Aboriginal Heritage Act 1988; consequently access for exploration purposes is not permitted.

All endeavours are currently being pursued by Straits to negotiate access to the tenement for exploration purposes. Unfortunately if access cannot be negotiated, then no exploration can be undertaken. However if access for exploration purposes can be achieved to EL4296, then this may also provide avenues for access for EL4397.

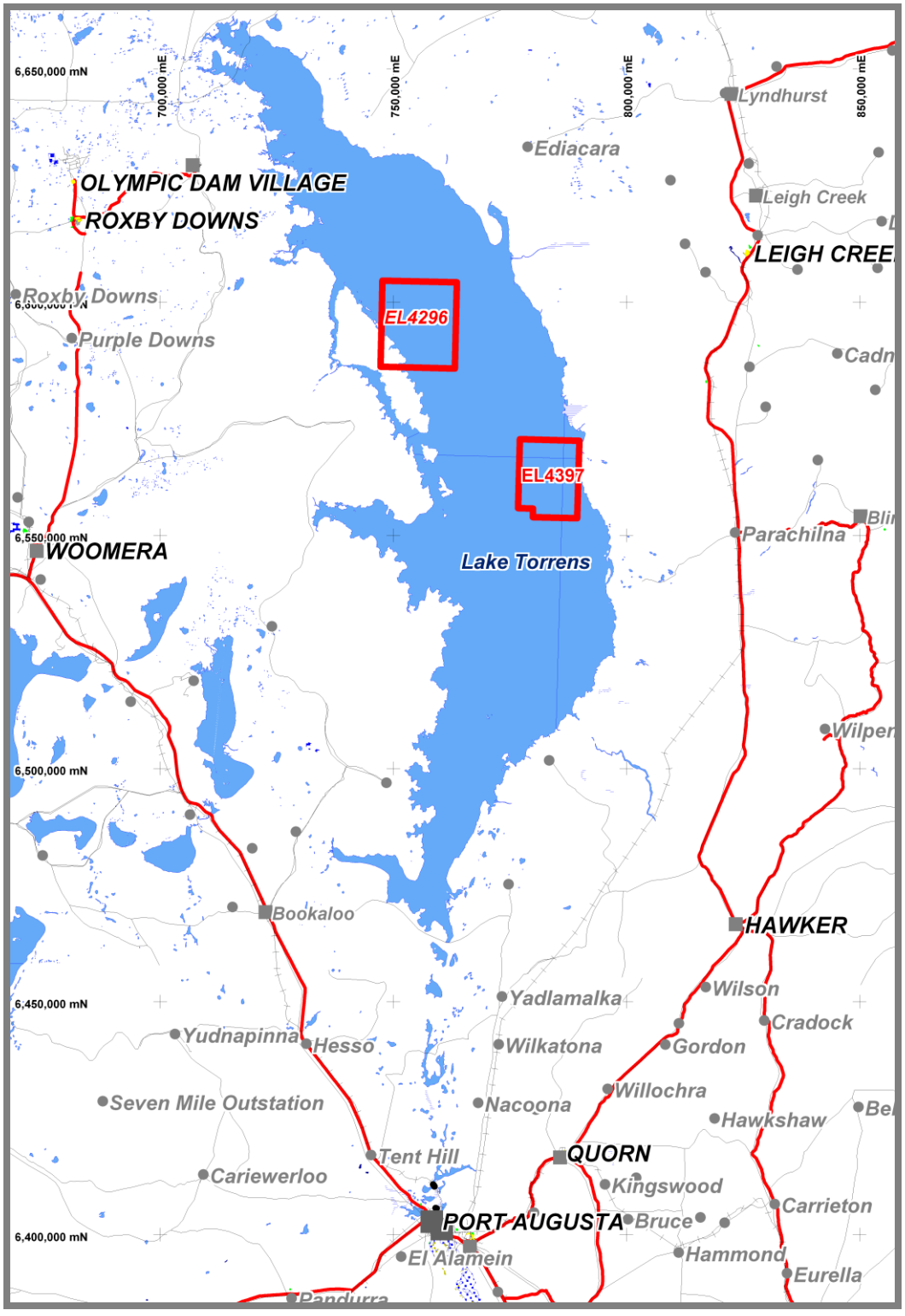

Figure 2: Tenement Location – EL4397 & EL4296

8 REFERENCES

Calvin, P (2010). EL 4296 “Torrens” Annual Report on Licence EL4296 for the period 18th August 2009 to 17th August 2010. Straits Exploration (Australia). September 2010.

9 BIBLIOGRAPHIC DATA SHEET

REPORT NUMBER:	Lake_Torrens_2010_Annual.pdf
REPORT TITLE:	Lake Torrens EL4397, Annual Report for the Period 10 December 2009 to 9 December 2010
PROSPECT NAME:	Lake Torrens
TENEMENT NUMBER:	EL4397
OWNER/JV PARTNERS:	Uranium Exploration Australia (100%) Straits Exploration (Australia) Pty Ltd (JV to earn a maximum of 70%)
COMMODITY (IES):	Gold, copper, uranium
TECTONIC UNIT(S):	Stuart Shelf
STRATIGRAPHIC UNIT(S):	The geology comprises Archaean to Mesoproterozoic crystalline basement, overlain by Neoproterozoic to Cainozoic shale, sandstone and conglomerate.
1:250,000 MAP SHEET(S):	Andamooka (SH53-12) Copley (SH54-09) Torrens (SH53-16) Parachilna (SH53-13)
1:100,000 MAP SHEET(S):	Scott 6436 Copley 6536 Woodforde 6435 Parachilna 6535
KEYWORDS:	Lake Torrens, Stuart Shelf, IOCG-U, Andamooka (SH53-12), Copley (SH54-09) Torrens (SH53-16) Parachilna (SH53-13)

Straits Exploration (Australia) Pty Ltd
Lake Torrens EL4397 Exploration Expenditure for the period 10th December 2009 to 9th December 2010

Description	**Cost Centre**	**Expense**
Land / Titles (tenement maintenance & legal fees)	952	$5,319
Geology	961	$3,358
Geophysics	954	$0
Vehicle Costs		$159
Computers, communications		$459
Overheads		$642
Administration	950	$381
TOTAL for Straits and UXA:		**$10,318**