



## Quarterly Report

*For the Quarter Ended 31<sup>th</sup> March 2007*

### OVERVIEW

#### *Exploration*

- **Kingoonya Palaeodrainage System** – Tarcoola and Kingoonya Projects.  
AEM REPTeM survey delayed by technical problems, scheduled to commence 1 May 2007  
air-core drilling contracted for Kingoonya Project (20,000m), scheduled for late June 2007  
Gardner Denver 1000 series mud rig purchased, commence in Tarcoola Project July-August 2007
- **Cleve Project** – Eastern Eyre Peninsula  
infill aeromagnetic/radiometric survey flown  
reconnaissance IP survey completed, anomalies identified  
air-core drilling scheduled for May 2007
- **Mullaquana Project** – Eastern Eyre Peninsula.  
infill aeromagnetic/radiometric survey flown  
air-core drilling scheduled for May 2007

#### *Corporate*

- Issue of Bonus Options completed.
- Bonus Options exercised during quarter totalled \$82,580 as at 31<sup>th</sup> March 2007. In addition, 500,000 employee options were exercised for \$100,000.
- Cash on hand at 31 March 2007 was \$5,622,000
- Recruitment of key staff. Our new Chief Geologist, Wade Bollenhagen, will commence in June, 2007.
- UraniumSA has purchased a Gardner Denver 1000 series mud drilling rig and a modern down-hole radiometric logging system. The drill rig and logging truck will form the core of our ongoing exploration effort.

#### *Projected activity to June 2007*

- May – completion of AEM survey of the Kingoonya Palaeodrainage System. Processing of the data and planning of first-pass exploration drilling.
- May – air-core drilling of Eastern Eyre Peninsula tenements.
- June – commencement of air-core drilling at Kingoonya Project, Kingoonya Palaeodrainage System.
- June – commissioning of UraniumSA drilling plant. The rig will be assigned to systematic work on the Tarcoola Project, Kingoonya Palaeodrainage System.

## EXPLORATION DETAIL

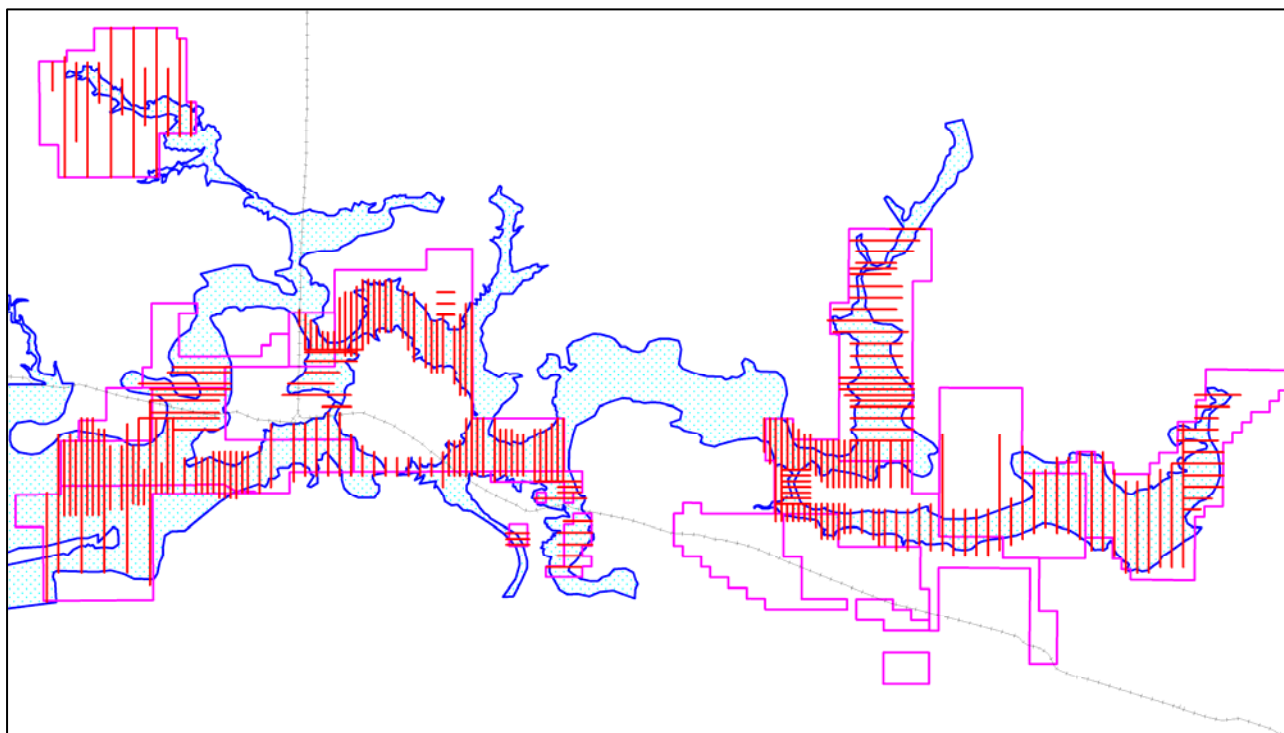
### Kingoonya Palaeodrainage System – Tarcoola and Kingoonya Projects

#### Airborne EM survey (AEM)

The REPTM airborne electromagnetic survey of the Kingoonya Palaeodrainage System (KPS) within the company tenements has been significantly delayed by technical problems. The contractors, GPX Airborne of Perth WA, now advise that **data acquisition is presently scheduled to commence Tuesday 1<sup>st</sup> May 2007**.

UraniumSA has chosen to persist with GPX and REPTM as it believes that the quality of the data delivered by the system will provide a sound foundation for our forward exploration program. Our Consultants advice is that the data will be amenable to significant post-processing and additional interpretive enhancements will be possible as information becomes available from the down-hole logging of exploration drill holes.

REPTM is a second generation time-domain electromagnetic system and is a development of the technology used in most commercial airborne electromagnetic systems. Taking advantage of developments in technology that have occurred in the more than 20 years since these systems were first developed REPTM is able to deliver a much cleaner signal allowing for clearer interpretations. There have however been a number of technology implementation issues, some exacerbated by the very dry atmospheric and ground conditions associated with the drought, which have resulted in significant delays to the program.



*Image of the proposed AEM coverage (red lines, 1 to 4 kilometre line separation) superimposed on the interpreted extent of the Kingoonya Palaeodrainage System (blue line and fill) with the UraniumSA tenure (purple outlines) and the junction of the Trans Continental railway and Alice Springs-Darwin line at Tarcoola (grey line).*

#### Drilling

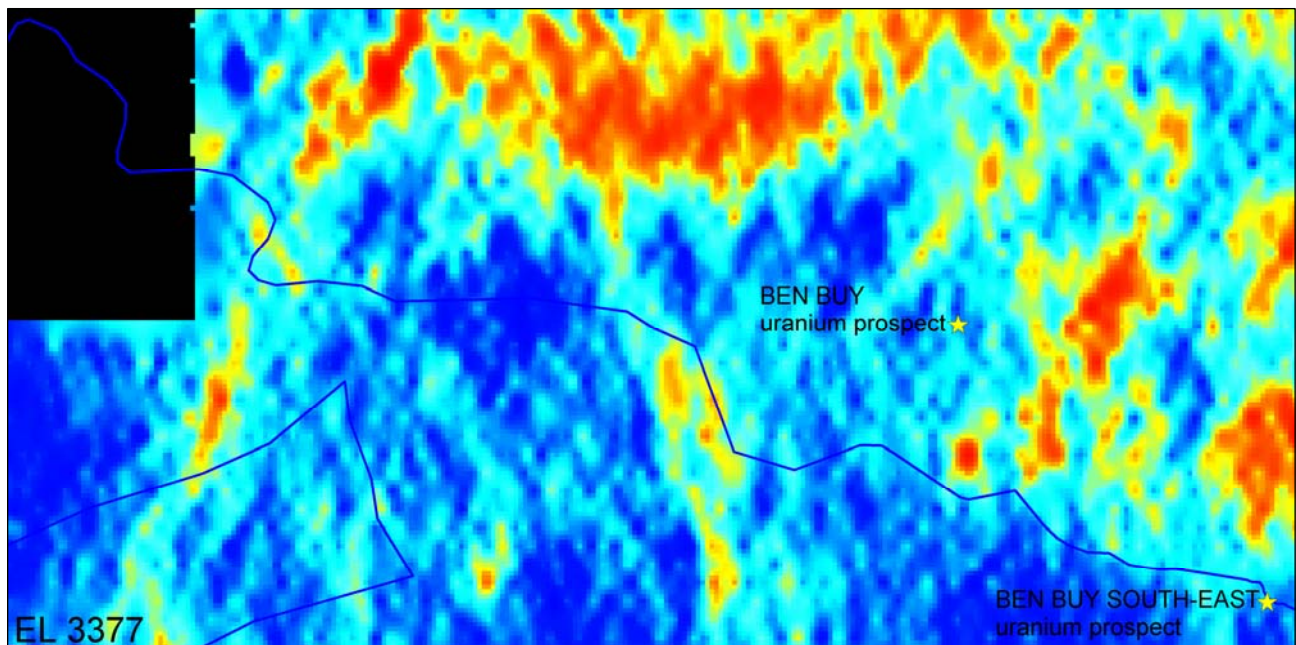
A **contract for a minimum of 20,000m of air-core drilling** has been signed. Commencement is contingent on completion of third-party programs and is presently scheduled for late June 2007. The work will start after the completion and initial interpretation of data from the AEM survey and will be concentrated in the Kingoonya portion of KPS in order to obtain first-pass information on the large areas of un-explored palaeodrainage in those areas.

The Company has **purchased a Gardner Denver 1000 series mud drilling rig** and associated equipment and is recruiting staff. It is anticipated that commissioning will occur during July and systematic exploratory drilling in the Tarcoola portion of the KPS will commence during July-August 2007.

## **Cleve Project – Eastern Eyre Peninsula**

### **Aeromagnetic/radiometric airborne survey**

An airborne survey has been completed over the southern portion of the Cleve tenement area to improve the quality of the magnetic and radiometric data sets, principally over the area of sub-cropping Blue Range Beds and known uranium occurrences. Initial data has been received and it is clear that extensive reprocessing will be required once the raw data is received. Uranium channel anomalies are present both over the targeted Blue Range Beds and within areas of basement rocks.



*Image of uranium channel aeromagnetic data from the southern portion of EL 3377. The blue line is the interpreted trace of the contact between Blue Range Beds (south of the line) and basement sequences (north of the line). The location of the historic Ben Buy and Ben Buy South-east uranium prospects are shown.*

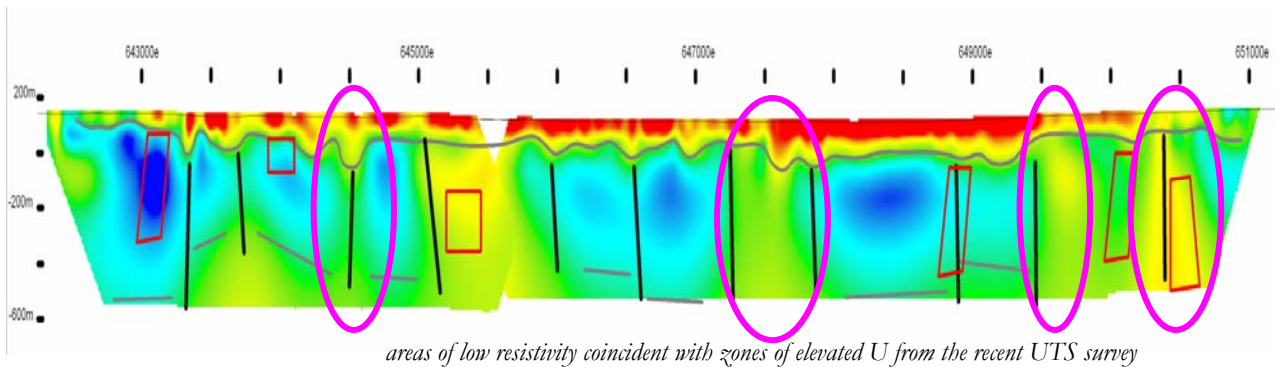
### **Induced Polarisation Survey**

Two broadly spaced induced polarisation lines were run across the Blue Range Beds within the southern portion of the Cleve tenement. The objective of the reconnaissance level work was to determine (1) if the method could map out the unconformable contact between the Blue Range Beds and underlying basement rock sequences and (2) if major structures and/or conductors associated with uranium mineralisation or anomalism could be identified.

An interpretation of the IP data and its integration with the results from the airborne survey is in progress. The draft Consultant report indicates that;

- The IP survey accurately maps the location of basement structures.
- Some of the mapped basement structures are coincident with anomalous uranium channel trends apparent in the airborne data set.

- Models constructed on the IP data highlight zones of low resistivity coincident with elevated chargeability anomalies, a signature which is congruous with that of a clay alteration halo such as found adjacent to unconformity style uranium deposits.



*6266000n & 6266200n IP Resistivity Model showing interpreted faults, overburden/cover contact, interpreted basement geometry and chargeability anomalies. Scale as shown, depth to horizontal 2:1*

The results indicate that the Induced Polarisation method does give results which can be interpreted in conjunction with other data sets and models of mineralisation to identify targets for exploratory drill testing. While the depth scale on IP sections is only an interpretive approximation it is clear that the major targets are at depths of between 300m and 600m and will have to be much better defined ahead of drill testing.

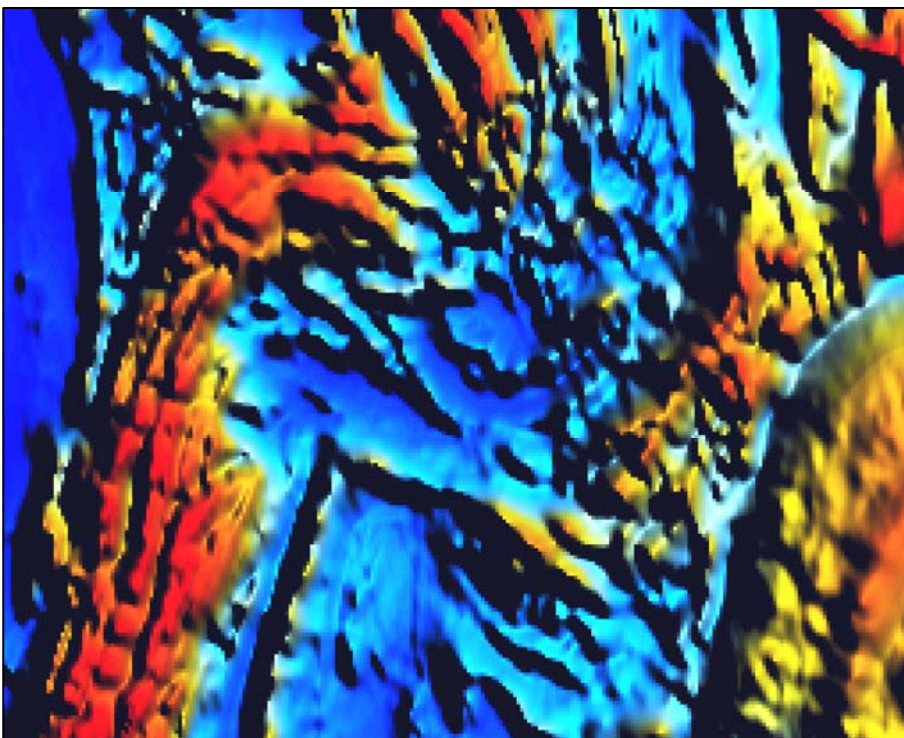
### Drilling

A contract for a minimum of 5,000m of air-core drilling has been signed for drilling in the Eastern Eyre Peninsula and the majority of this will be allocated for work on the Cleve Project. The contracted rig has a depth capacity of 100 to 120m and the work will be targeting the collection of bedrock samples for geochemical analysis.

## Mullaquana Project – Eastern Eyre Peninsula

### Aeromagnetic/radiometric airborne survey

An airborne survey has been completed over the central portion of the tenement area to improve the quality of the magnetic and radiometric data sets, principally in the area of the interpreted inflexion of the Roopena fault zone. Initial data has been received and it is clear that extensive reprocessing will be required once the raw data is received.



*Image of the Total Magnetic Intensity of a part of EL 3652, Mullaquana, showing a complex structural flexure in the interpreted trace of the Roopena Fault.*

## **Drilling**

A portion of the 5,000m of air-core drilling contracted for the Eyre Peninsula will be allocated for initial reconnaissance drilling in the Mullaquana tenement. This air-core drilling will be directed towards determining depth of cover and obtaining bedrock samples to assist in processing the airborne data to identify and prioritise targets for subsequent deeper drill testing.

## **CORPORATE DETAIL**

As foreshadowed in the Prospectus the Company issued Bonus Options in the ratio of 1 option for every 2 shares to shareholders on the register as at 18<sup>th</sup> January 2007. Since that date a total of 330,320 Bonus Options have been exercised. In addition, 500,000 employee options were exercised.

As at 31<sup>st</sup> March 2007, the issued capital of the Company was 62,080,322 fully paid ordinary shares.

As at the 31<sup>st</sup> March 2007 the Company had cash reserves of \$5,622,000

UraniumSA has now recruited the core of its professional exploration team. Our new Chief Geologist, Wade Bollenhagen, will commence in June, 2007. He will lead our exiting team of Nikki Galloway-Worland, Research Geologist, Edward Keys, Project Geologist and David Usher, Driller.

UraniumSA has purchased a Gardner Denver 1000 series mud drilling rig in the United States and is importing it to Australia. The rig was originally purpose built for uranium exploration and has been working on water well drilling during the downturn in the uranium industry. The associated equipment - water tanker and service vehicles – has been sourced from within Australia.

UraniumSA has purchased a modern down-hole radiometric logging system from GeoVista in the United Kingdom. The equipment will be installed into a dedicated logging truck. The drill rig and logging truck will form the core of our ongoing exploration effort.

## **PROJECTED ACTIVITY to June 2007**

GPX advise that the crew and equipment are mobilising to commence the flying of the contracted AEM survey. Subject to no more delays being encountered, flying should be completed by early-mid May with initial results available by the end of May. Interpretation will commence immediately to identify targets for initial exploratory drilling.

Air-core drilling of the Eastern Eyre Peninsula tenements is scheduled to commence the second week of May 2007. Results of this reconnaissance work will be reported as they become available.

The drill contractor advises that they remain on schedule to become available late June to commence drilling in the Kingoonya Project. Targeting will be completed once the initial AEM results are available.

UraniumSA anticipates to be commissioning its drilling rig and down-hole logging equipment during June-July. Commissioning will be carried out on the Mullaquana tenements, immediately south of Whyalla, in an area where workshops and other infrastructure are available. Once all systems are fully operational the plant will move onto systematic drilling of the Tarcoola Project.

*The drill and exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. R...G. Bluck (Member of the Australian Institute of Geoscience) who is a Director of the Company with more than twenty years experience in the field of activity being reported. Mr. Bluck consents to the inclusion in the report of matters based on his information in the form and context in which it appears. It should be noted that the abovementioned exploration results are preliminary.*