



ASX Release
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ASX: RSL

RESOURCE STAR DEFINES TARGETS AT EDITH RIVER URANIUM PROJECT, NT

New, well-defined uranium targets have been generated by the initial interpretation of a recently-completed aeromagnetic and multi-spectral radiometric survey over Resource Star's high priority Edith River uranium exploration project, in the Northern Territory.

In addition to providing a better understanding increased of existing prospects; three new uranium channel radiometric anomalies have been defined lying along key structural elements.

Key Results:

- **Improved geophysical dataset acquired**
- **Existing uranium targets refined, new targets identified:**
 - Strong, discrete targets defined over a 3km strike length at **O'Shea Hill**, associated with a basal sequence unconformably overlying deformed basement
 - Two further anomalies, **Horseshoe Creek** and **Balaclava**, have been noted to lie along strike of a paired magnetic feature that runs through RSL's existing Tennysons prospect

Upcoming Activities:

- Mapping and sampling of the targets, commencing May, 2010
- Drilling planned during 2010

Resource Star Ltd (ASX: **RSL**) today announced that it has identified new uranium channel radiometric anomalies at its 100%-owned Edith River Uranium Project.

Interpretation of the recently completed airborne geophysical survey has significantly improved resolution, identified new anomalies, and enhanced the quality of RSL's existing uranium exploration targets.

A number of the most interesting newly-defined features are radiometric anomalies along interpreted structures related to the regionally-important Pine Creek Shear Zone, and will form the focus of ground exploration during the upcoming field season, commencing this month.

Resource Star holds a portfolio of mineral tenements for uranium exploration in the Northern Territory over parts of southwest margin of the prospective Pine Creek Orogen. The Company has recently completed a detailed low-level airborne geophysical survey over a number of these projects. The 3,250 line kilometre program was conducted by GPX Surveys, with 100 to 200 metre spaced flight lines and 60 metre flight height. This work is a more detailed multi-spectral radiometric and magnetic survey than previously available, and it has significantly enhanced the definition of previously identified areas of interest.

Initial interpretation of data from the **Edith River Project** (Fig 1) has generated a number of high priority uranium targets, and enhanced information about existing prospects. Mapping and sampling of these targets is to commence during May, to be followed by drill testing, subject to results, commencing in 2010.

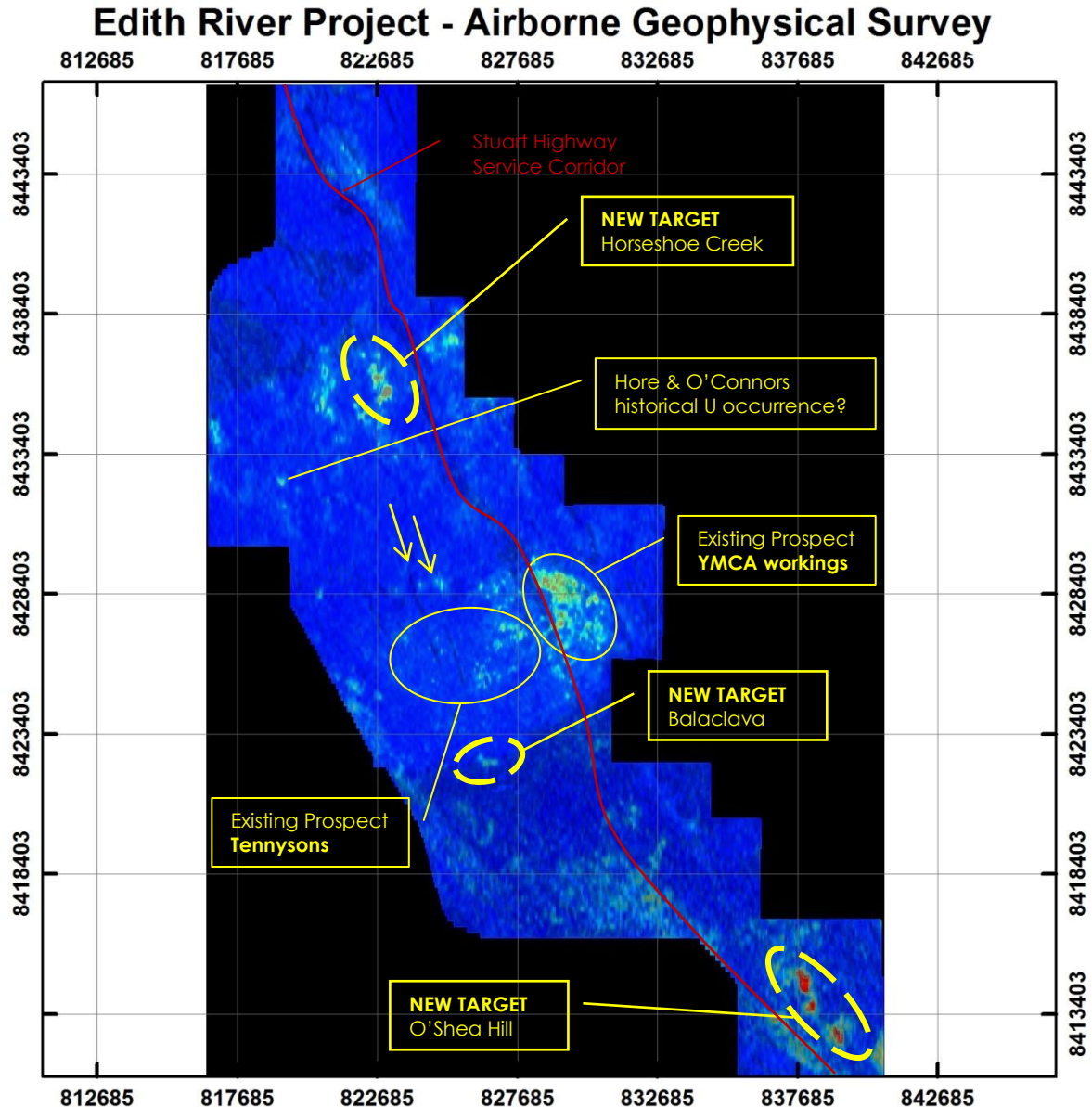


Figure 1: Composite Image of the new Edith River Project geophysical datasets as a combination of U & U/Th radiometrics (yellow-red) with magnetics (dark blue). Note the two parallel NNW-trending magnetic features running through Tennysons (marked with arrows).

Existing Targets

RSL's adjoining prospects, **Tennysons** and the **YMCA workings**, both based on historic uranium occurrences, demonstrate quite different responses in this data. This is partly due to elevated thorium at Tennysons suppressing the response in this image, due to the U/Th component used. Thorium enrichment can be a component of the alteration geochemistry of some IOCG-style mineralised systems.

Running through Tennysons, where earlier RSL work has mapped numerous elevated uranium surface spectrometer results, are two pronounced magnetic features (marked with arrows in Fig 1) which are interpreted to be due to iron enrichment within NNW-trending alteration zones noted in earlier ground reconnaissance. The introduction of iron to alteration zones along faults is consistent with IOCG affinities.

Surface gamma spectral analysis shows that features in this orientation control the distribution of uranium in outcrop. The orientation is sub-parallel to the regionally significant Pine Creek Shear Zone, which runs along the eastern edge of the survey area.

The strength and size of the uranium channel response around the **YMCA workings** is equally encouraging. Additional interpretation of the geophysical results in both these areas will be completed before the early commencement of detailed mapping and sampling at these prospects during May, 2010.

The previously documented historic **Hore & O'Connor's** occurrence appears to show up as a subtle, discrete feature in this presentation of the data, which gives encouragement for the potential of stronger responses when tested on the ground.

New Targets

Within the 40km strike length tested by the airborne geophysical survey, additional areas of interest have been identified:

- Just to the south of **O'Shea Hill** the strongest uranium channel response from the current survey, approximately double any other peaks, is one of three peaks along a strike length of 3km.

The features lie close to, and trend sub-parallel to, the Phillips Creek Fault, a component of the Pine Creek Shear Zone, and is along strike from the shearing and alteration zones hosting the uranium mineralisation at the old YMCA workings.

The host sequence here is mapped as being a Cambrian basal volcano-sedimentary sequence, including well-sorted sandstones, conglomerate and basalt, unconformably overlying deformed Proterozoic rocks, which is a different setting to the granite-hosted Tennysons & YMCA prospects.

- At **Horseshoe Creek** a composite feature of a total 1.5km length and up to 600m wide is the strongest of a band of anomalies just south of a granite-sediment contact is adjacent to mapped shearing that is directly along strike from the magnetic features noted in this survey as cross-cutting the Tennysons surface anomalism.

There are other features along the east-west trend that also warrant investigation, but work will initially concentrate on the best response indicated.

- **Balaclava** is a radiometric target some 700m in length which occurs where the twinned linear magnetic features that cross-cut Tennysons hit the granite-sediment contact, as shown by edge of the dark blue mottled texture in the magnetics.

A setting such as this has excellent structural and chemical contrast to focus the deposition of uranium; so, while the signature is not as large in magnitude or areal extent as the other targets, any response in this context is considered encouraging.

These areas are all planned to be included in early reconnaissance and sampling, with field activities starting during May, 2010.

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About Resource Star Ltd

Resource Star Ltd is a publicly-listed Australian company (ASX: RSL) that has interests in uranium and uranium-associated exploration assets in the Northern Territory, Western Australia, Tasmania and Malawi, south-east Africa.

The Company's main projects are the 100%-owned Edith River Uranium Project in the Northern Territory, and a joint venture with Globe Metals & Mining on the Machinga Niobium-Rare Earths Project in Malawi. Globe is managing the Machinga program, with input from Resource Star, and they are currently earning 20% equity through exploration expenditure. In a staged process Globe can earn up to 80% in the project by funding all activity up to and including a feasibility study.

Competent Person Statements

The information in this report that relates to Exploration Results is based on information compiled by Mr Richard Evans, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Evans is a full-time employee of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

This report contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information might include, among other things, statements with respect to the Company's business strategy, plans, objectives, performance, outlook, growth, shareholder value, projections, targets and expectations, Mineral Reserves and Resources, results of exploration and related expenses, property acquisitions, mine development, mine operations, drilling activity, sampling and other data, grade and recovery levels, future production, capital costs, expenditures for environmental matters, life of mine, completion dates, uranium prices, demand for uranium, and currency exchange rates. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast' and similar expressions. Persons reading this report are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information. Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to the risk factors set out in the Company's Annual Report.

This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully and readers should not place undue reliance on such forward-looking information. The Company disclaims any intent or obligations to update or revise any forward-looking statements whether as a result of new information, estimates or options, future events or results.