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## **New high-priority gravity targets at Ridgeback SA**

- **Large gravity survey completed around Ridgeback magnetic targets near Bute on Yorke Peninsula, South Australia**
- **Results add six exciting new copper gold uranium targets within highly prospective Pine Point Fault Zone**
- **Pattern of targets consistent with predicted structural framework for a large mineral centre**
- **Drilling to commence as soon as access is negotiated**

Southern Uranium Limited (ASX Code: SNU) has received the data from the recently completed gravity survey at Ridgeback on the northern Yorke Peninsula of South Australia.

Contractors surveyed the 30km length of prospective Pine Point Fault Zone (PPFZ) within Exploration Licence (EL) 4278 that is held 100 percent by Southern Uranium.

The February survey was designed to detect gravity targets with potential for iron oxide copper gold uranium (IOCGU) deposits in association with the two Hillside-style magnetic targets already identified at Ridgeback (Figure 1A). The target analogy is the non-magnetic haematite-hosted deposit at Prominent Hill.

Consequently, six new targets were identified as gravity anomalies adjacent to the Ridgeback targets and other magnetic anomalies along a highly prospective 20km segment of the PPFZ (Figure 1B).

Southern Uranium's Managing Director, John Anderson said the survey work had produced excellent results.

"The gravity results are very exciting as the new targets firmed up our view that the Ridgeback area is one of South Australia's best exploration addresses with potential for greenfields IOCGU discoveries." Mr Anderson said.

"The combined gravity and magnetic targets support the presence of a large mineral system that warrants a substantial exploration program. The pattern of targets is close to our structural prediction of where IOCGU deposits are likely to have formed, so we look forward to being able to start drill testing soon."

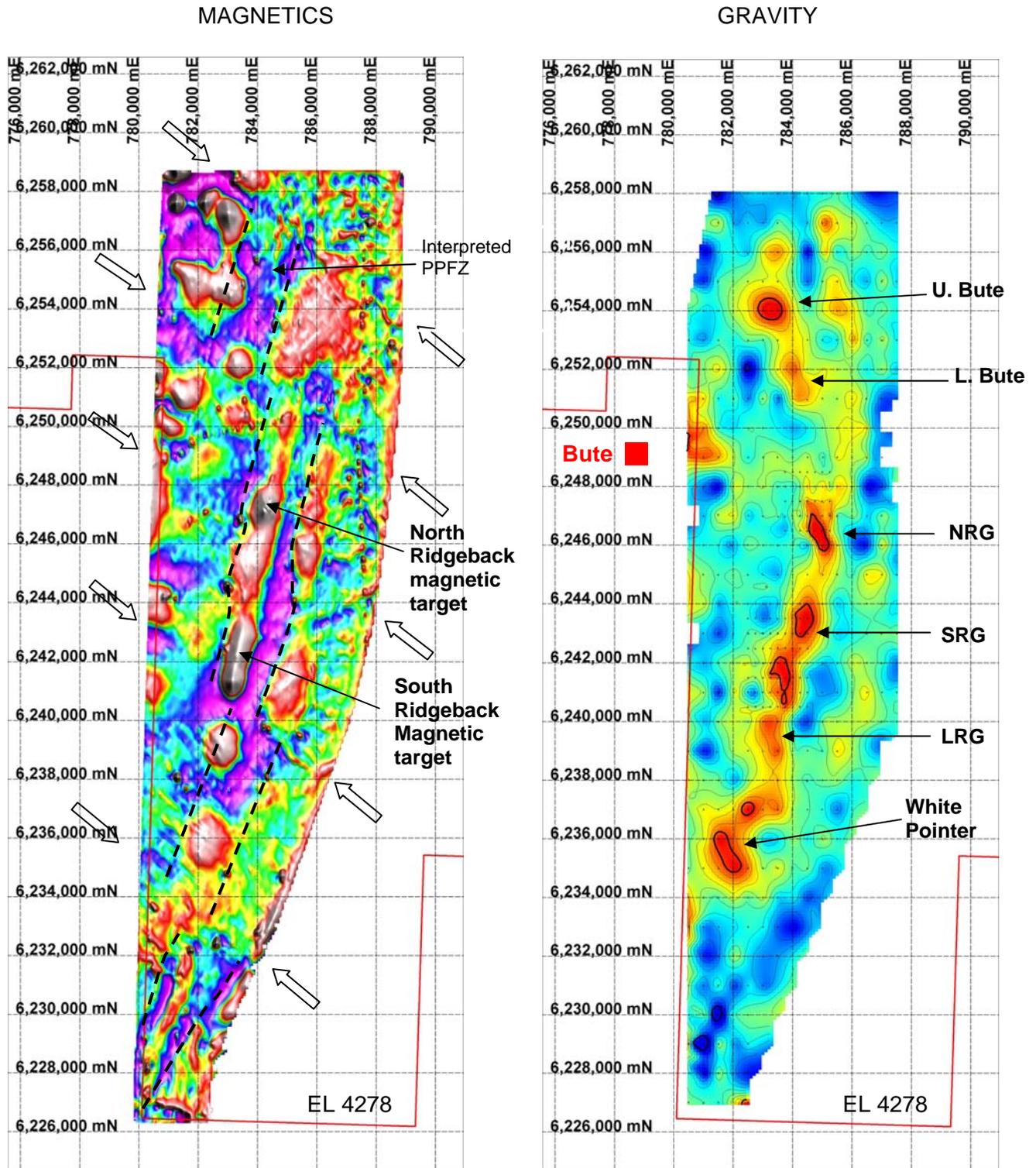


Figure 1A: Residual magnetic intensity image (reduced to pole) from the December helicopter-borne magnetic survey showing the two initial Ridgeback magnetic targets and northwest structural jogs (arrows) in the PPFZ

Figure 1B: Residual gravity image from the February ground gravity survey showing new targets in the interpreted Ridgeback IOCGU mineral system

**Strategic position on the Pine Point Fault Zone**

The Pine Point Fault Zone hosts the Hillside copper-gold and uranium deposits recently discovered by Rex Minerals Limited and located 60km south of EL 4278 (Figure 2). The Hillside deposits are hosted by magnetite-altered rocks and are considered variants of the IOCGU family of deposits.

The pedigree of the Gawler Craton as a world-class copper gold uranium province is resurging as the mounting discoveries of IOCGU deposits at Prominent Hill, Carrapateena and Hillside add to the best known example of Olympic Dam. Each discovery provides more information that improves the explorer’s ability to choose locations and exploration techniques to make the next generation of discoveries within the craton.

Southern Uranium was primed by its expertise and focus on the craton to identify the potential of the PPFZ as a highly prospective structure and to secure its northern extensions with EL4278. Magnetic targets like Hillside are regularly developed at about 15km intervals along the PPFZ. The magnetic targets are likely to represent more IOCGU deposits that formed at the intersections of crosscutting structures.

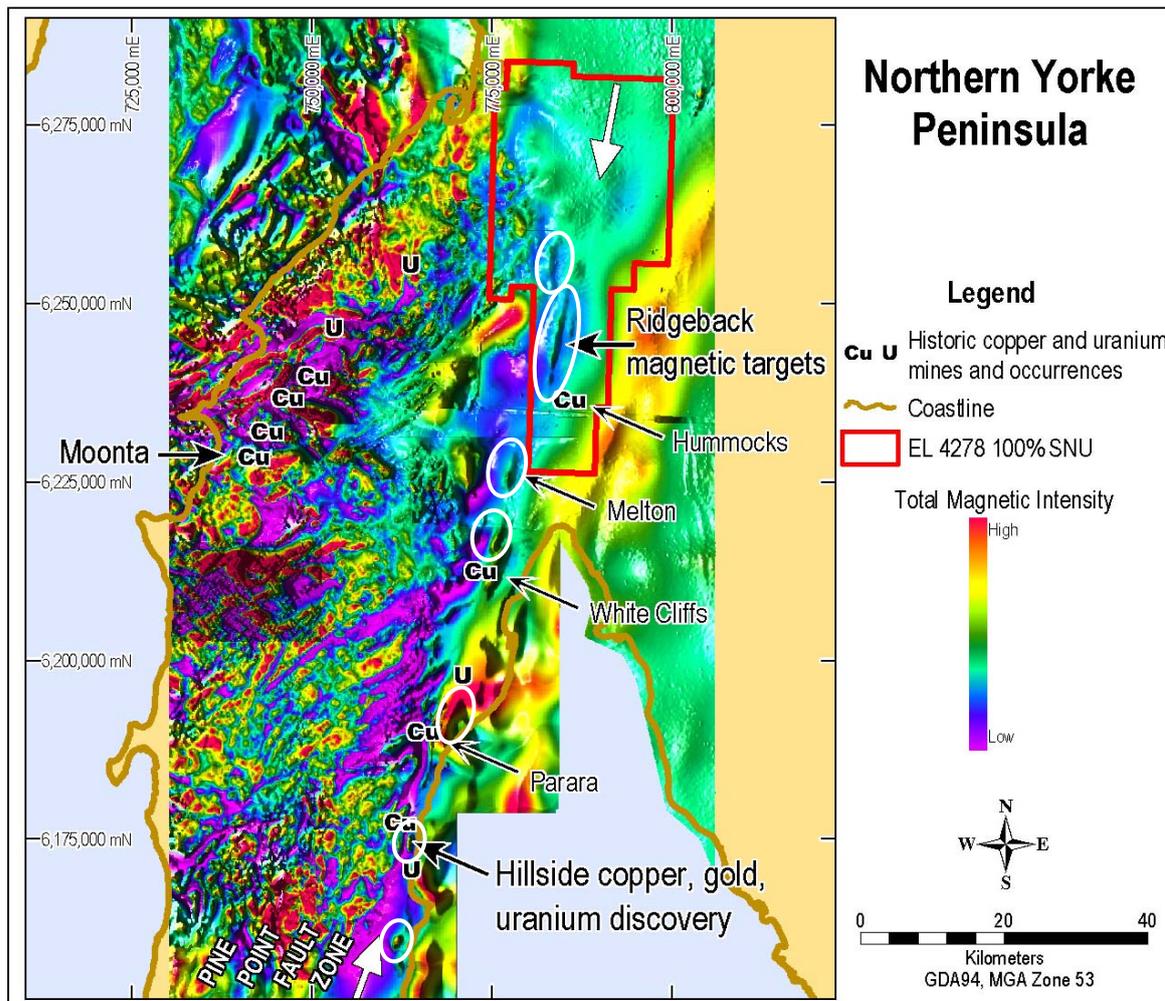


Figure 2: Magnetic image of northern Yorke Peninsula showing the Pine Point Fault Zone with regularly spaced magnetic targets (white ellipses) and associated historic copper and uranium occurrences. (Image is filtered TMI from PIRSA’s regional dataset; acknowledgement AsIs International).

### Initial Ridgeback magnetic targets

Two magnetic targets within EL4278, North Ridgeback and South Ridgeback, have been previously described by the Company (ASX Release: 2<sup>nd</sup> December 2009 “Modelling confirms prospectivity of Ridgeback targets on Hillside trend, South Australia”) as having strong potential for Hillside-style deposits.

The prospective character of the targets was confirmed by geophysical consultants AsIs International providing a quantitative comparison of the magnetic signatures for Hillside and Ridgeback. This showed the Hillside and South Ridgeback magnetic profiles have very similar amplitudes and shape when adjusted for depth differences (Figure 3).

The potential of the Ridgeback targets to be magnetite-hosted IOCGU targets is further enhanced by their regional position at the intersection of major structural lineaments and by the anomalous geology intersected in historic drilling undertaken nearby for unrelated targets.

The magnetic targets are proposed for drill testing as soon as access agreements are finalised with affected landowners.

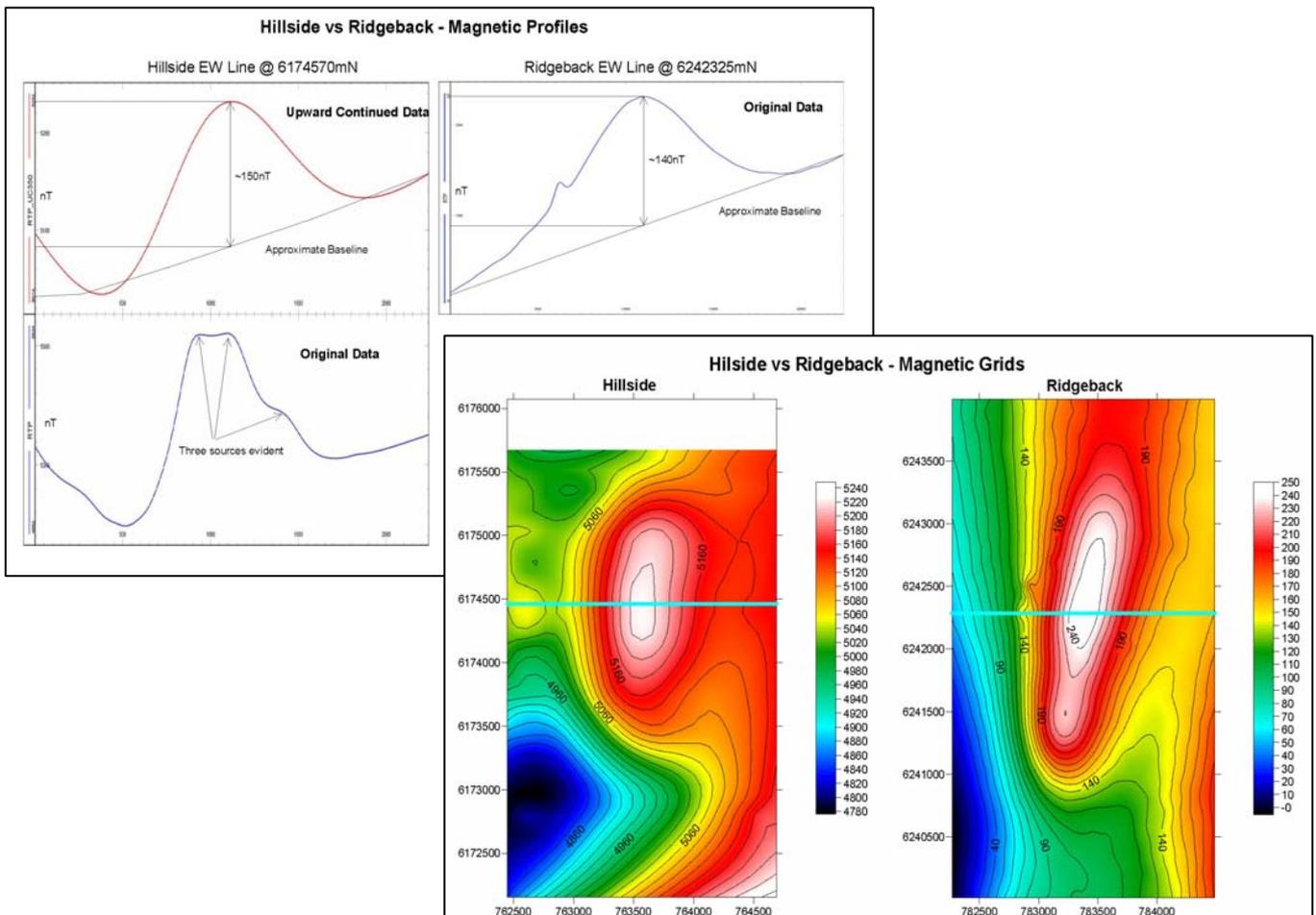


Figure 3: Comparative magnetic profiles and contour plans for Hillside and South Ridgeback. Original Southern Uranium data is shown for South Ridgeback. The Hillside data are adjusted to represent the expected magnetic response at the same depth as South Ridgeback.

## New Gravity Survey and Targets

The Ridgeback magnetic targets may be the core of a large mineral system that also contains haematite-hosted IOCGU deposits. Haematite is another iron oxide that can form IOCGU deposits but unlike magnetite is not magnetic. So the geophysical detection of haematite-hosted IOCGU deposits beneath cover is reliant on gravity surveys to measure the density of the haematite.

Gravity was the primary exploration method used to discover the Olympic Dam, Prominent Hill and Carrapateena deposits adjacent to lead-in magnetic anomalies.

The recent gravity surveying was therefore undertaken over an approximate 7km by 30km area centred on the Ridgeback magnetic targets (Figures 1A & B). This work identified six new high potential targets as being semi-coincident with or along the PPFZ from the magnetic targets. The new targets have prospective sizes of one to two kilometres length.

The gravity targets are considered to be favourably placed on linear northwest oriented structural splays off the original magnetic targets (NRG, SRG, LRG) or as standalone targets with subdued magnetic anomalism (Upper Bute, Lower Bute, White Pointer) in larger northwest jogs to the PPFZ at either end of the 20km target segment of the PPFZ.

The pattern of gravity anomalies relative to the initial magnetic targets is encouragingly consistent with the structural prediction of IOCGU targets interpreted from the regional magnetics and used to select the area of the survey. The pattern and extent of anomalous geophysical signatures may indicate a large mineral centre.

Southern Uranium's initial priority is the drilling of the two Ridgeback magnetic targets to test for Hillside-style deposits or to at least demonstrate the presence of a large IOCGU mineral system.

The positive gravity results have significantly expanded the target portfolio at Ridgeback and additional drill programs are being planned.

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**Competent Person Statement:** *The information in this report that relates to Exploration Results is based on information compiled by John Anderson (BSc(Hons)Geol) who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. Mr Anderson is a full-time employee of Southern Uranium Limited. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken 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. Anderson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

***Southern Uranium Limited is a uranium, copper and gold focussed resources company with a strong platform of active exploration properties and drill targets in pedigree belts of Australia.***

***The Company aims to grow into a major explorer and developer by discovering new large resources that will compete for the anticipated shortfalls in global supply.***