

Quarterly Report



Southern Uranium

Our Corporate Focus

- Vision of becoming a copper gold and uranium developer through exploration and acquisition.
- Focus on the discovery of quality deposits in pedigree belts of Australia.
- Evaluating iron ore and vanadium opportunities identified in established project areas.

Our Project Locations



Eyre Peninsula Iron Ore

1 Jungle Dam Prospect

Gawler Craton iron oxide copper gold uranium ("IOCGU") -style

2 Ridgeback, northern Yorke Peninsula

3 East Eyre Peninsula (incl. Yalanda Hill JV)

Eucla Basin roll front uranium

4 Challenger West & Tallaringa JVs; Warrior South

NT unconformity-style uranium

5 Rum Jungle

6 Calvert Hills (incl. Vanadis vanadium Prospect)

Queensland sediment- & volcanic-hosted uranium

7 Toolebuc.

8 Pandanus West (incl. new Mt Brown JV)

March 2010 Quarter

Key Points

- Jungle Dam iron ore prospect, Eyre Peninsula – Drilling elevates shallow haematite potential in 3km long Central Target Zone; Magnetic detailing planned to refine targets in another 11km of strike potential.
- Ridgeback iron oxide copper-gold-uranium ("IOCGU") targets, northern Yorke Peninsula – Drilling delayed by access negotiations; Gravity surveying added six new targets; another IOCGU prospective trend identified on the tenement.
- East Eyre Peninsula IOCGU project – Infill soil sampling completed over 9 targets; First pass surveying commences on the Yalanda Hill JV area.
- Airborne electromagnetic survey maps roll front uranium potential at Charleston South in the Mullaquanna region of Eyre Peninsula.
- Cash resources of A\$2 million as at 31 March 2010.

MD's Summary Comment

SNU Managing Director John Anderson said:

"Our concept of uranium copper gold silver and iron potential extending in a prospective corridor across the Yorke and Eyre Peninsulas is paying off.

Southern Uranium now has a wealth of diverse target opportunities in this highly prospective region of the Gawler Craton. These are the Hillside-style IOCGU targets at Ridgeback, multiple copper-gold-uranium and silver-gold targets developed by our innovative geochemical approach on Eyre Peninsula and the Jungle Dam iron ore targets in the same geological unit that contains One Steel's Middleback deposits 50km to the east.

We have also now identified roll front uranium potential in our southern Eyre Peninsula tenement along interpreted extensions to the Mullaquanna trend of recent discoveries made by a neighbouring explorer. The Company is looking forward to strengthening its financial capacity to develop these exciting prospects."

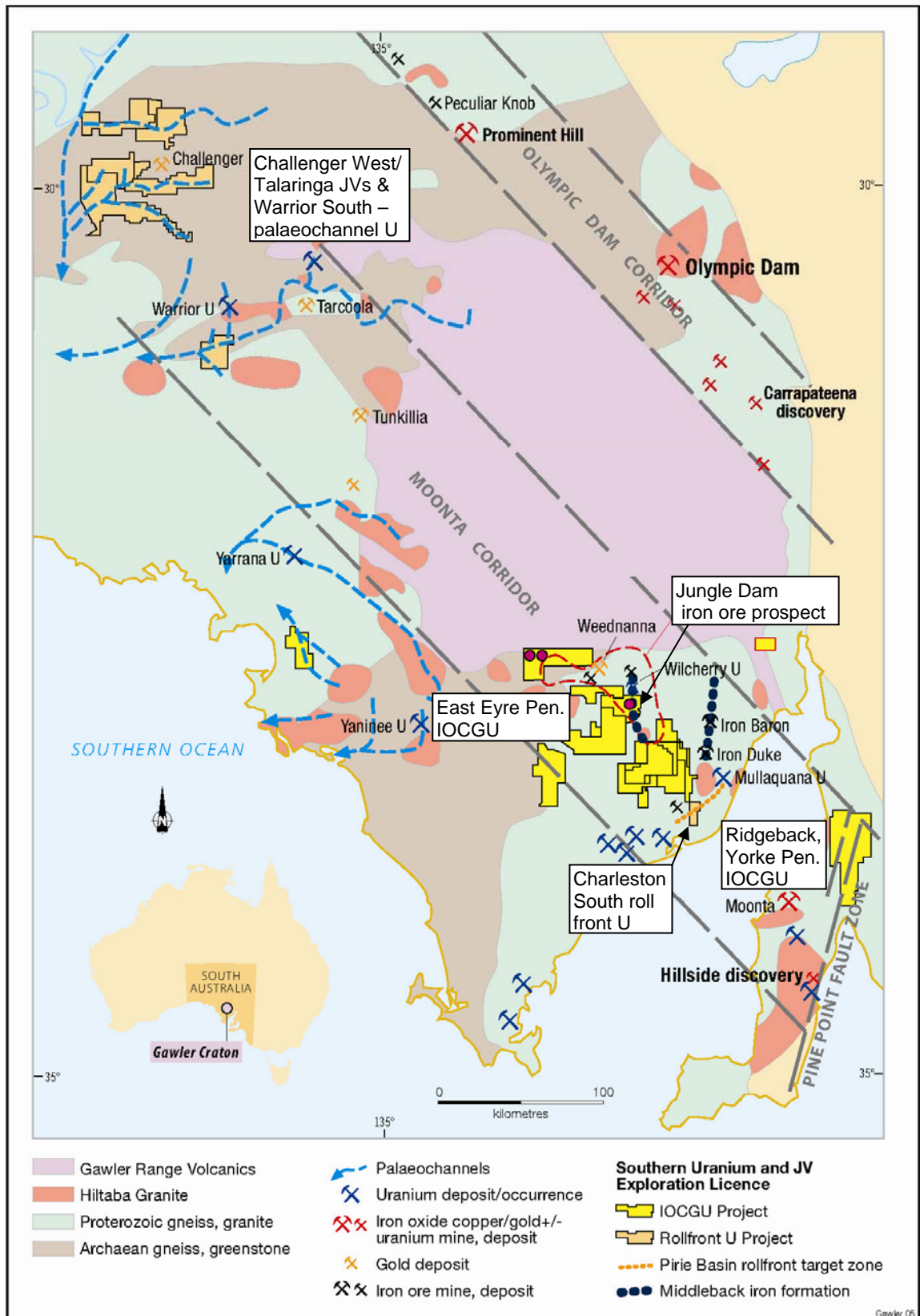
For further information please contact

John Anderson - Managing Director

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Email: info@southernuranium.com.au

Figure 1: South Australian project locations and regional targeting concepts.



CORPORATE

Financial

As foreshadowed in our half yearly financial report, Southern Uranium is considering available fund raising alternatives to fully realise the potential of our portfolio of projects. We anticipate making appropriate announcements as matters progress

Business Development

Southern Uranium is taking the opportunity to develop new IOCGU projects on the northern Yorke Peninsula. The preparation of the Ridgeback Hillside-style IOCGU targets revealed other targeting opportunities in the Moonta-Bute district, some of which will be amenable to the transfer of the Company's soil geochemical tactics from Eyre Peninsula. These opportunities are being pursued through pegging and new joint ventures.

Consequently a Joint Venture agreement was entered into with Destiny Stone Australia Pty Ltd for Southern Uranium to acquire 85% interest in all minerals except dimension stone and industrial minerals under Exploration Licence 3922. The EL applies to the prospective Webling Bay area on the west side of the Yorke Peninsula and opposite the Ridgeback tenement (Figure 2). Past drilling in the Webling Bay area intersected metasomatically-altered rocks ("metasomatites") and possible hydrothermal breccias on the northeastern extensions of the trend of historical Moonta copper gold deposits. Limited gravity coverage shows anomalies that warrant targeting for IOCGU deposits by further gravity detailing and soil geochemical sampling over the relatively thin cover. The Joint Venture is subject to transfer of the interest to Southern Uranium and notification of the release of all encumbrances affecting the tenement.

An Exploration Licence "Paskeville" was also applied for in the Bute-Kainton area to secure another IOCGU-prospective trend although this is contested by another application and will be awarded by a standard government panel process.

Business Development Manager Alex Thin resigned during the period to take up another corporate role. The Board thanks Alex for his contribution to building the Company over the past three years.

Tenements

Full annual renewals were obtained for the Rum Jungle EL24867 and Calvert Hills EL24837 tenements in the Northern Territory.

Streaky Bay EL3512 in the central Gawler Craton was relinquished during the period as offering no further IOCGU potential.

OHS and Environmental

No incidents to report

EXPLORATION PROJECTS

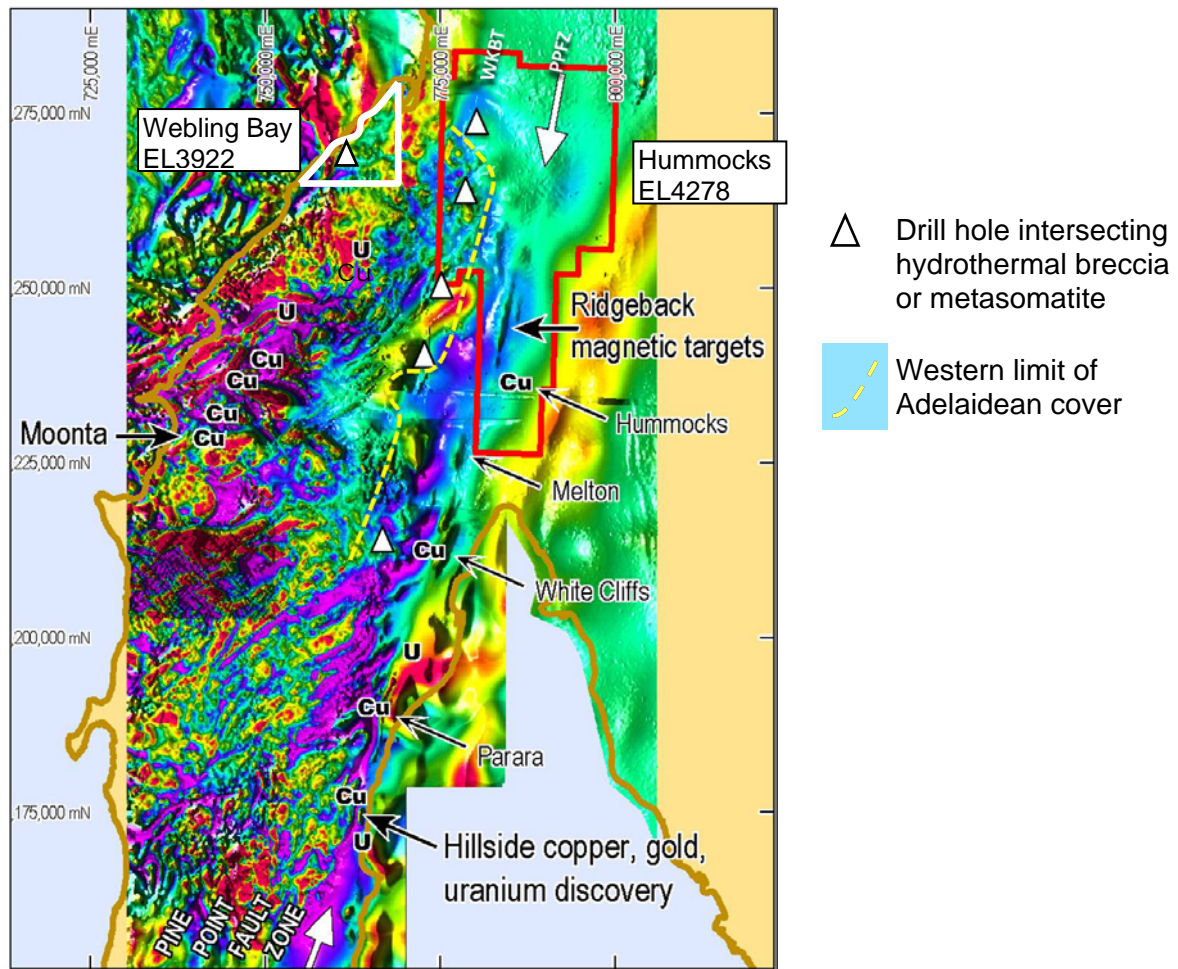
IRON OXIDE COPPER GOLD URANIUM (IOCGU) PROJECTS Gawler Craton SA

Ridgeback Prospect, Northern Yorke Peninsula Project SA (100% Southern Uranium)

Exploration Licence 4278 covers at least 30km of the interpreted northern extensions of the Pine Point Fault Zone (PPFZ) that hosts the new copper, gold and uranium discoveries at Hillside (Rex Minerals Ltd) about 60km south of the tenement (Figure 2).

The prime Ridgeback targets are two magnetic anomalies similar to the Hillside signatures. Results from past drilling, although not testing the targets, show nearby alteration and copper mineralisation that further enhance the potential of the targets to be associated with iron oxide, copper, gold and uranium deposits at relatively shallow depths of 350m – 450m depth to top.

Figure 2: Filtered magnetic image of northern Yorke Peninsula district showing prospective target zones



During the quarter, modelling of the new airborne magnetic data (Figure 3) collected in December confirmed the similarity of the Ridgeback magnetic targets with the magnetic signature of the Hillside deposits when the latter was adjusted to a depth equivalent to that anticipated for the Ridgeback targets (Figure 4).

A detailed gravity survey delineated six new gravity targets with IOCGU potential (Figure 3). These are closely associated with the Ridgeback magnetic targets and with apparent structural patterns consistent with the Prominent Hill analogy.

An application was made for Round 6 Collaborative drill funding from the SA Government. The drilling of the Ridgeback magnetic targets is delayed while we continue access negotiations with the relevant landowners, await the collaborative funding decision from the government and assess the priorities and access to the additional targets provided by the new gravity data.

In preparing the Ridgeback targets, analysis of past drilling revealed another prospective NNE trend with IOCGU potential referred to as the Wokurna Kainton Breccia Trend ("WKBT" on Figure 2). Drill holes along the trend had intersected haematitic hydrothermal breccias and related metasomatites to the west of and parallel to the Pine Point Fault Zone ("PPFZ"). The WKBT corresponds with the western edge of Adelaidean sediment cover with a 20km segment within EL4278 warranting gravity and soil surveying. The southern extensions of the WKBT were applied for under the contested Paskeville ELA.

Figure 3: Residual gravity and magnetic images produced from recent SNU surveys showing selected targets

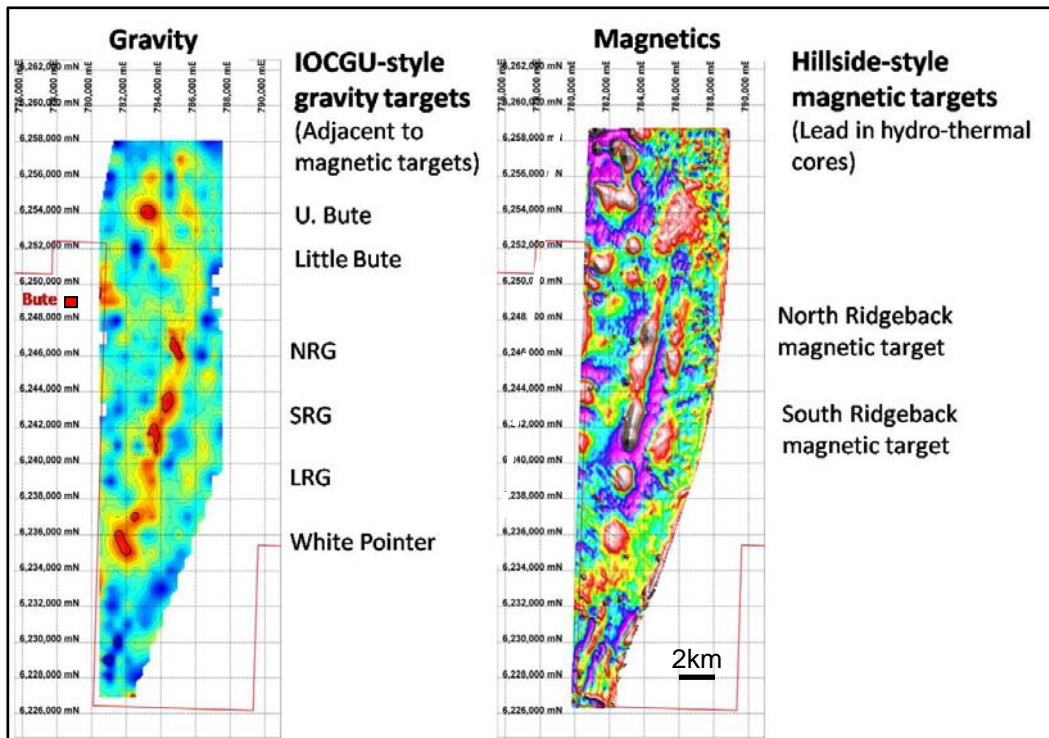
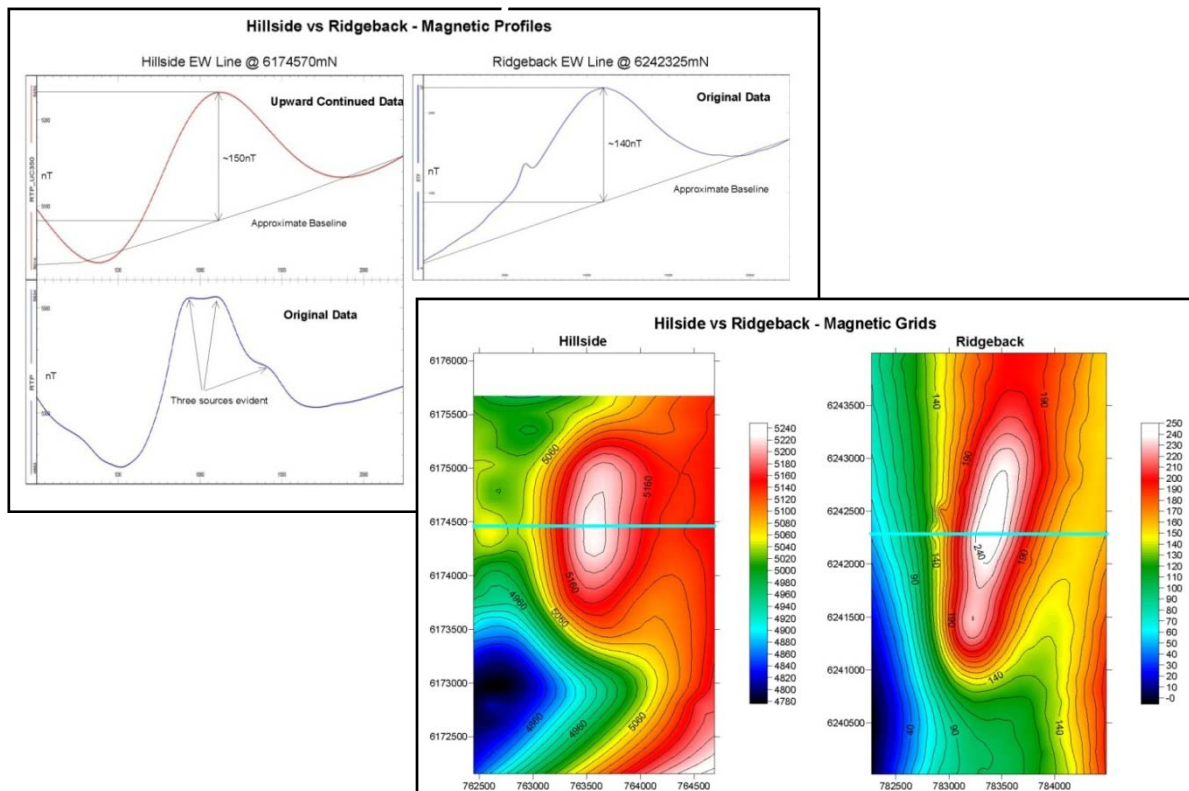


Figure 4: Magnetic modelling and comparison of the Ridgeback and Hillside magnetic anomalies
Top – modelled sections; Bottom – modelled magnetic intensity plans



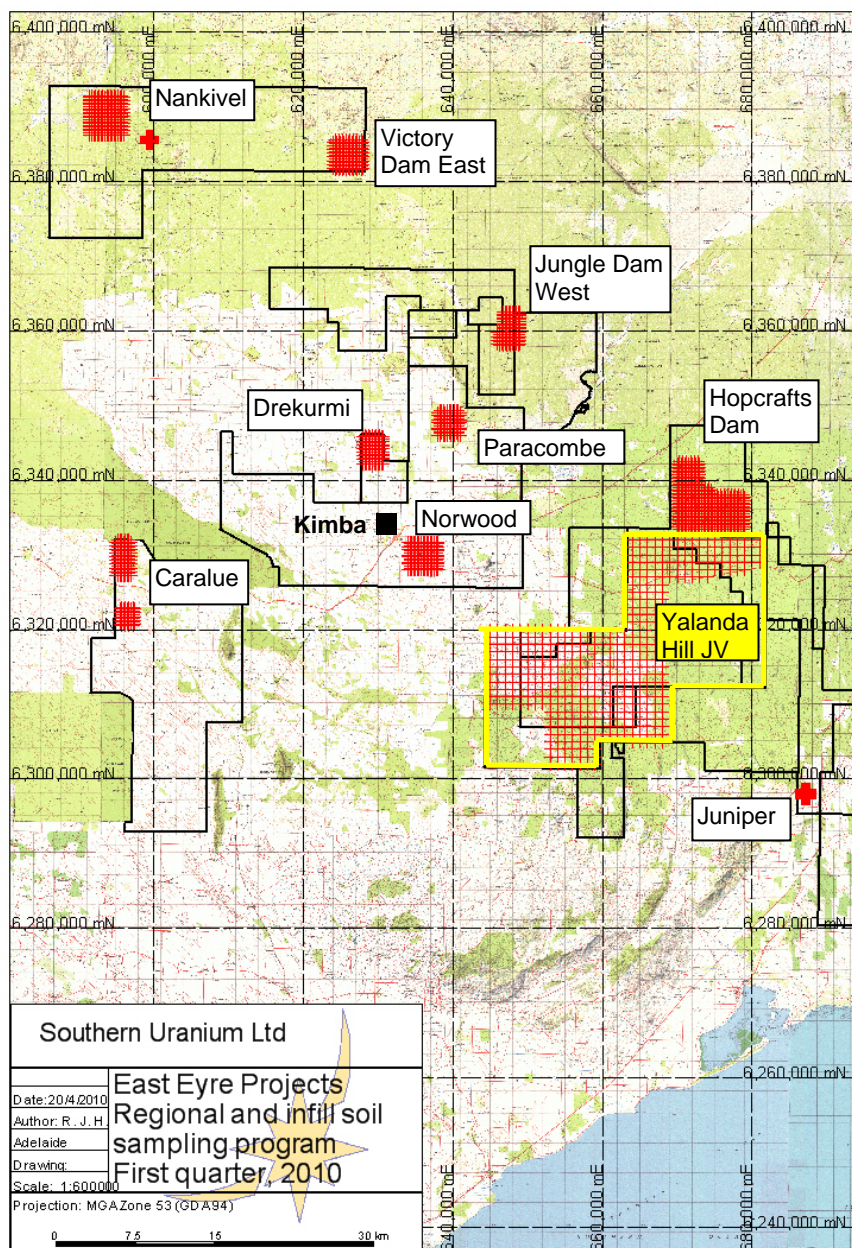
East Eyre Peninsula Project (100% Southern Uranium tenements plus various joint ventures including the Yalanda Hill JV below)

Infill soil sampling of nine target areas (Figure 5) was completed during the quarter and the analyses continue to be received for assessment of the targets. The target areas are variously anomalous in copper gold silver and uranium. Testing of the targets is scheduled for later in 2010.

Yalanda Hill Joint Venture (Adelaide Resources Ltd. 60%; Southern Uranium 40% and earning to 60% by \$250,000 expenditure over two years commencing September 2009.)

First pass soil sampling and gravity surveying of the Yalanda Hill joint venture area commenced at the end of the quarter with soil samples collected on a 1km pattern for about 65% of the JV area thus far (Figure 5).

Figure 5: East Eyre Peninsula soil sampling during the March Quarter



IRON ORE Eyre Peninsula SA

Jungle Dam Prospect, Wilcherry Hill district

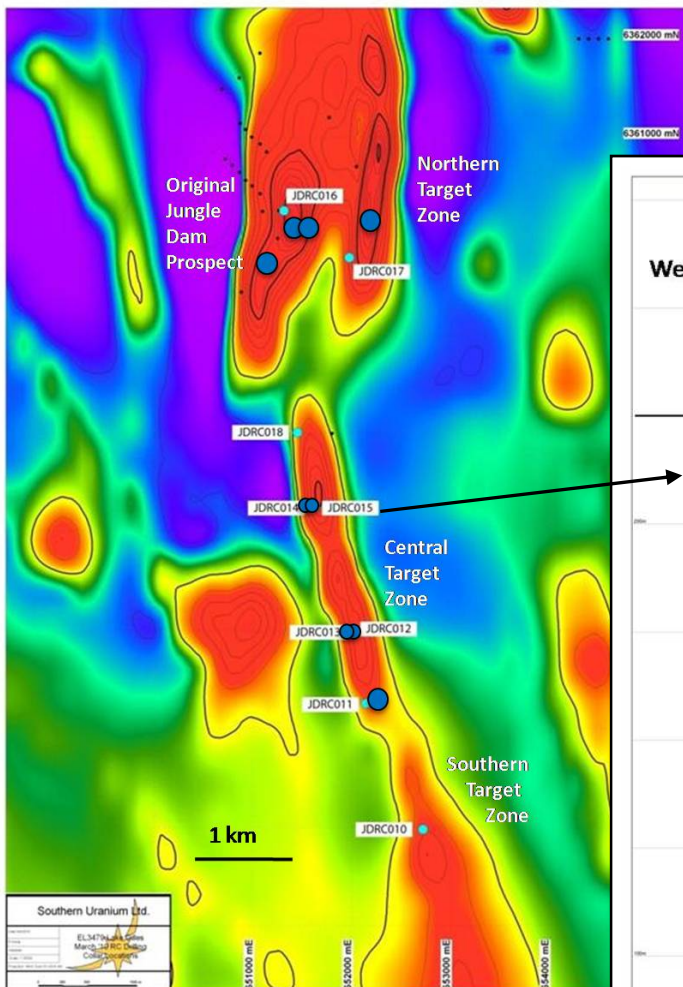
Southern Uranium’s prior drilling of IOCGU targets at Jungle Dam, delineated by gravity and soil geochemistry, had intersected greater than 30% Fe as magnetite, haematite and goethite in several holes. The intersections occur within magnetic units that extend from the Hercules deposit for about 14km into Southern Uranium’s ground. The iron formations are equated with the Middleback iron formations that host the One Steel iron ore operations 50km to the east of Jungle Dam.

During the quarter, 710m of new reverse circulation percussion drilling was undertaken in nine holes to specifically target the iron ore potential (Figure 6). Four holes intersected iron formation while the remaining holes failed to reach the target iron formation due to geological and drilling reasons.

The successful intersections showed the Central Target Zone of about 3km length has shallow potential for haematitic zones starting within 10 metres from the surface and with possible widths of more than 45 metres and depth extents of 70m above the targeted magnetite iron formation (Figure 7). Preliminary assays are expected in mid-May.

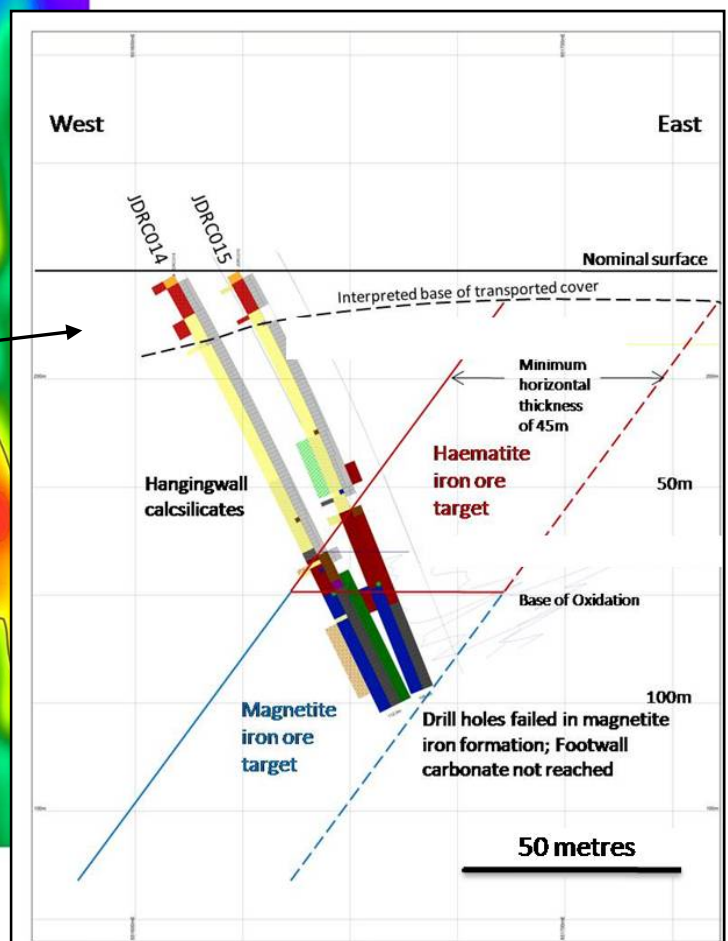
Detailed magnetic mapping is required before further drilling can be accurately placed to test the other 11km length of iron ore potential.

Figure 6: Jungle Dam Iron Ore Prospect – Drilling on magnetic image
Drilling during quarter is labelled



- Iron formation intersection +30% iron intersection
- Iron formation intersection – assays awaited

Figure 7: Section 6357250mN



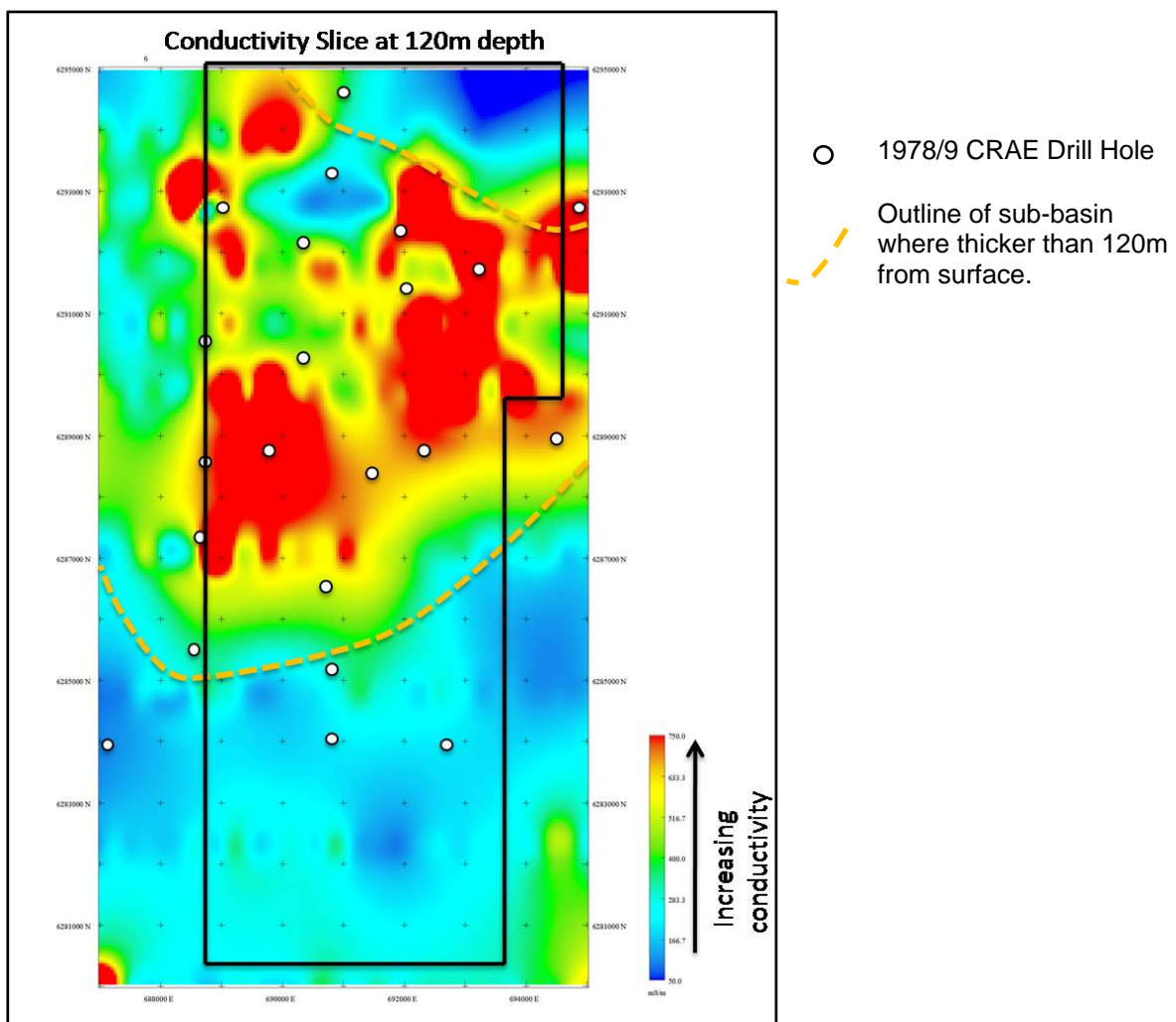
ROLLFRONT URANIUM PROJECTS, SA

Charleston South, Eyre Peninsula

The southern portion of Moonabie EL3552 at the south end of the Eyre Peninsula tenements (Figure 1) contains the western edge of the Pirie Basin about 60km southwest of the recent Mullaquanna uranium discoveries by Uranium SA Ltd.

An airborne electromagnetic (AEM) survey was flown across the tenement area in January by neighbours Stellar Resources Ltd. who provided Southern Uranium with the data. This shows conductive sediments that are prospective traps for roll front uranium at about 120m depth over a wide area (Figure 8). The prospective sediments lie within a sub-basin delineated by past drilling by an earlier uranium explorer. The new AEM data will be compared with the past drilling to reassess the uranium potential in the context of new revelations for the setting of the Mullaquanna discoveries.

Figure 8: Charleston South - conductivity map produced from the recent AEM survey showing sub-basin with roll front uranium potential in the Pirie Basin



Challenger West and Tallaringa Joint Ventures, Eucla Basin

The joint ventures continue to be managed by JV partner Mega Hindmarsh Pty Ltd. No developments were reported during the quarter.

Warrior South, Eucla Basin

No activity

UNCONFORMITY URANIUM PROJECTS Northern Territory

Calvert Hills Joint Venture Project (Southern Uranium 75%; Uranium West 25%)

The project under tenement EL24837 is situated 100km west of the Westmoreland uranium field and has similar geological and structural ingredients for shallow-covered unconformity-style uranium deposits. Southern Uranium has identified prospective locations similar to the Westmoreland setting but under cover by integrating modern geophysical techniques.

Southern Uranium earned to 75% interest during the quarter.

A review of the recent drilling and regional data identified five areas with the highest uranium and vanadium potential including the new Vanadis vanadium prospect. These will be prospected and mapped during the coming dry season. The priority will be establishing a drill strategy for the Vanadis prospect.

Rum Jungle Joint Venture Project, Northern Territory (Uranium West Ltd 100%; Southern Uranium earning to 50%)

The project covers the basal unconformity and prospective northeast structures in the area between, and not including, the Browns and Mount Fitch deposits.

During the quarter, the airborne electromagnetic data collected collaboratively with Geoscience Australia during 2009 was interpreted and prospective structures were identified for possible drill testing during 2010.

VOLCANIC-HOSTED URANIUM PROJECT

Pandanus West Joint Venture, North Queensland (Epsilon Energy 40%; Southern Uranium 60%)

The project covers two areas of historic uranium prospects and regional extensions with potential for Ben Lomond-style volcanic-hosted deposits. The only drilling was undertaken during the 1970's with a number of uranium intersections reported including the best intersection of 10m @ 0.53% U₃O₈.

The assay results for the December drilling were disappointing with the best result of 13m @158ppm U including 6m of 258ppm U in PWRC09 under the Hat 2 target. The intersected uranium mineralisation is considered secondary and may be remobilised from a deeper primary target that is being assessed.

A regional review of all target possibilities including gold was undertaken over the wet season with 13 potential targets proposed for field assessment during 2010.

Mount Brown Joint Venture, North Queensland (Mantle Mining Corporation 100%; Southern Uranium earning to 51%)

The Project area is located immediately to the east of the Pandanus West joint venture. The tenement package covers geology with potential for volcanic-hosted uranium deposits as exemplified in the region at Ben Lomond and Maureen.

Under the same regional review as for Pandanus West, 14 potential targets for uranium and other metals were identified for field assessment.

SEDIMENT-HOSTED PROJECTS

Toolebuc Project, Cloncurry-Boulia Districts, Queensland (Southern Uranium 100%)

The aim of the project is to secure the most prospective parts of the uraniferous Toolebuc Formation where groundwaters draining the Eastern Succession basement are likely to form roll front-style deposits in reduced palaeochannel sediments.

Reporting and reviews were undertaken during the quarter.

Corporate

The quarterly corporate and administration costs were A\$293,000 and the direct exploration expenditures were A\$687,000.

The Company held A\$2.003 million in cash at the end of the report quarter.

Capital Structure

As at 28th April 2010:

- Shares on issue 115,000,000
- Unlisted Options 2,300,000

Substantial Shareholders

As at 28th April 2010:

- Talbot Group Holdings Pty Ltd – 14.5%
- CITIC Australia Pty Ltd – 14.3%

Directors & Management

Mr Roger Marshall OBE (Chairman)
Mr David Jones (Non Exec. Director)
Mr Bruce Foy (Non Exec. Director)

Mr John Anderson (Managing Director)
Mr Garry Gill (CFO and Company Secretary)
Mr Barry Willott (Exploration Manager)

Competent Person Disclosure:

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.

For further information please contact

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Southern Uranium

Appendix 5B

Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

SOUTHERN URANIUM LIMITED

ABN

90 115 338 979

Quarter ended ("current quarter")

MARCH 2010

Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (6 months) \$A'000
Cash flows related to operating activities		
1.1 Reimbursements from JV partners	-	-
1.2 Payments for:		
(a) exploration and evaluation	(687)	(2,518)
(b) development		
(c) production		
(d) administration	(293)	(945)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	22	84
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material)		
Net Operating Cash Flows	(958)	(3,379)
Cash flows related to investing activities		
1.8 Payment for purchases of:		
(a) prospects		
(b) equity investments		
(c) other fixed assets	(2)	(19)
1.9 Proceeds from sale of:		
(a)prospects		
(b)equity investments		
(c)other fixed assets		47
1.10 Loans to other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)		
Net investing cash flows	(2)	28
1.13 Total operating and investing cash flows (carried forward)	(960)	(3,351)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(960)	(3,351)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.		
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Net financing cash flows	-	-
	Net increase (decrease) in cash held	(960)	(3,351)
1.20	Cash at beginning of quarter/year to date	2,963	5,354
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	2,003	2,003

Payments to directors of the entity and associates of the directors

Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	46
1.24	Aggregate amount of loans to the parties included in item 1.10	NIL

1.25 Explanation necessary for an understanding of the transactions

N/A

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

NIL

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

NIL

Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	NIL	NIL
3.2	Credit standby arrangements	NIL	NIL

+ See chapter 19 for defined terms.

Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	566
4.2	Development	NIL
Total		566

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	2,003	2,003
5.2	Deposits at call		
5.3	Bank overdraft		
5.4	Other (provide details)		
Total: cash at end of quarter (item 1.22)		2,003	2,003

Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished reduced or lapsed	EL 3512 Tenement relinquished	100%	nil
6.2	Interests in mining tenements acquired or increased	ELA 58/10 New tenement application—awaiting grant	nil	100% on grant

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

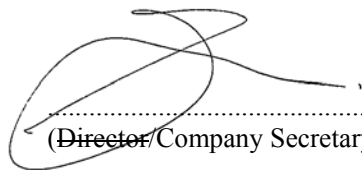
	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 Preference +securities <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 +Ordinary securities	115,000,000	115,000,000		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5 +Convertible debt securities <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 Options <i>(description and conversion factor)</i>	2,000,000 100,000 100,000 100,000	Nil Nil Nil Nil	<i>Exercise price</i> \$0.25 \$0.18 \$0.184 \$0.205	<i>Expiry date</i> 2 April 2011 12 August 2012 23 September 2012 1 October 2012
7.8 Issued during quarter	Nil			
7.9 Exercised during quarter	Nil			
7.10 Expired during quarter	7,500,000	Nil	\$0.25	31 March 2010
7.11 Debentures <i>(totals only)</i>				
7.12 Unsecured notes <i>(totals only)</i>				

+ See chapter 19 for defined terms.

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act ~~or other standards acceptable to ASX (see note 4).~~
- 2 This statement does ~~not~~* (*delete one*) give a true and fair view of the matters disclosed.

Sign here:



..... Date 28 April 2010

(~~Director~~/Company Secretary)

Print name:

.....GARRY GILL.....

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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+ See chapter 19 for defined terms.