URANEX NL

REPORT FOR THE QUARTER ENDED

31st December 2008

HIGHLIGHTS

TANZANIA

Manyoni

- **Project conceptual development report submitted to Tanzanian Government.**
- **Pre-Feasibility Study delayed by late Sonic Rig arrival.**
- **Final Feasibility Study targeted for late 2009 – early 2010.**
- **Production start up now targeted for 2011.**

Mkuju

- **6,500m of 15,000m drilling program completed.**
- **Preliminary results show potential 6 x 1 km anomalous trend.**
- **Geological mapping and deposit targeting continuing throughout region.**

AUSTRALIA

Thatcher Soak, Western Australia

- **Scoping Study scheduled for March 2009 Quarter completion.**
- **Initial Resource upgrade drilling completed.**

Bremer Basin, Western Australia

- **Palaeo-channel drilling returns uranium and other mineralisation indications.**

CORPORATE

- **Future funding requirements continue to be addressed, particularly in light of the current global financial downturn.**

OPERATIONS

TANZANIA

Manyoni Project (nee Bahi; Uranex 100%)

A key objective in the December Quarter was the presentation of a conceptual development report to the Tanzanian Government in support of the Manyoni Uranium Project. This objective was achieved and the report is currently with the Government.

The Manyoni Project Area, now totals 1,442 km^2 including the western sector of Lake Bahi. All the contained resources will be the subject of the on-going Pre-Feasibility and Environmental Baseline Studies. In addition to the known resources and deposits, there is still very high potential for additional new discoveries.

The conversion of reconnaissance lease areas at Manyoni and the late arrival of the Sonic drill rig have necessitated the rescheduling of the Pre-Feasibility and Environmental Baseline Studies. These studies are now planned to ramp-up in late February 2009 with the Sonic Rig providing the necessary high quality, representative resource samples.

Metallurgical test work – Two composite samples MC1 & MC2 from multiple trial pits were submitted for mineralogical analysis and preliminary leach test work to Ammtec in Perth, Western Australia. The work was conducted under the technical guidance of Mineral Engineering Technical Services (METS).

The mineralogy of uranium in the two samples is indicated below:

Uranium Minerals	Sample MC1	Sample MC2
Schrockingerite	69%	68%
Carnotite	0%	22%
Coffinite	31%	10%

Importantly, there is no uranium association with clays or micas, which is a positive for Manyoni; as such an association could render uranium extraction more difficult. At this very early stage, the uranium minerals Schrockingerite and Carnotite appear to be amenable to satisfactory, conventional leach recovery. While the dissolution of Coffinite is more difficult, it is not however regarded in this instance as being highly refractory.

Uranium mineral liberation was different for the two samples. For sample MC1, at size fractions above 75 microns, the majority of uranium occurs as composites with quartz (labelled Bin U + Qtz), but below 75 microns the majority of uranium is liberated as illustrated in Figure 1 below.

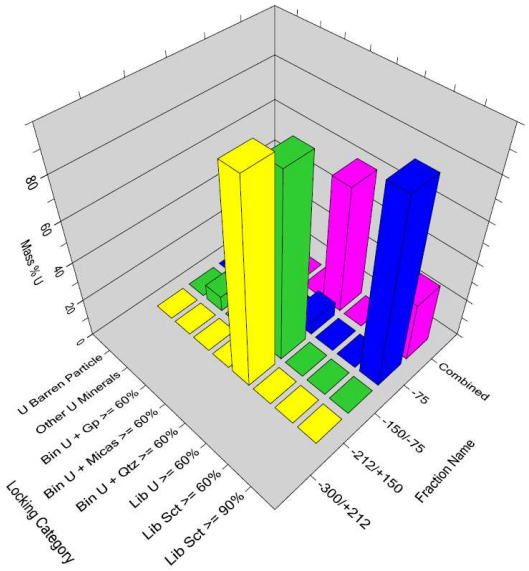


Figure 1. Sample MC1 Liberation of Uranium

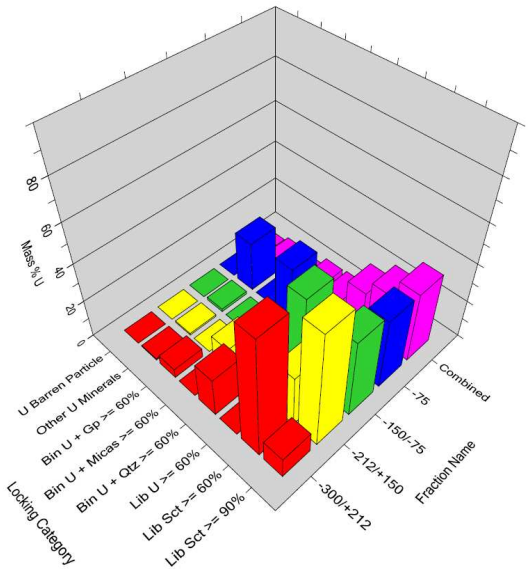


Figure 2. Sample MC2 Liberation of Uranium

Sample MC2 has medium to well liberated uranium in all size fractions as illustrated in Figure 2 above, where a greater proportion of the uranium minerals fall into the ≥90% liberated category.

Leach testing yielded variable results using acid and carbonate – bicarbonate lixiviates. This may reflect the variability in uranium mineral liberation illustrated in Figures 1 & 2. Testwork is ongoing.

The reported Inferred Resources at the Manyoni Uranium Project are as follows:

Cut off U_3O_8 ppm	Deposit	Tonnes Million	U_3O_8 ppm	U_3O_8 Million Pounds
100	C1	24	163	8.6
	Playa A	10	148	3.3
	Playa E	12	128	3.4
	Total	**46**	**151**	**15.3**
150	C1	8	245	4.3
	Playa A	4	189	1.7
	Playa E	2	166	0.7
	Total	**14**	**218**	**6.7**

(Rounding errors may occur)

Bahi Region (Uranex 100%)

The Bahi Region totalling 1,917 km^2, is still predominantly untested, but contains similar exploration targets to those already located within the Manyoni Project.

Arrival of Sonic Rig in Tanzania: Uranex have purchased a tractor mounted sonic drill rig for use at its advanced projects in Tanzania. The machine has been shipped from Europe and is currently standing outside the port of Dar es Salaam awaiting docking. It is anticipated that the rig will be on-shore in Tanzania by approximately mid February, 2009 and available for drilling at Manyoni by March 2009. The advanced sonic drilling technique allows the recovery of high quality in-situ samples from loose unconsolidated sediments which host the Manyoni Project Resources.

Early drilling work will focus upon resource upgrading and representative metallurgical samples at Manyoni before moving on to other exploration activities in the Manyoni, Mkuju and Bahi Region areas, as ground conditions (wet weather), access, technical focus and other activities permit.

Mkuju Project (Uranex 100%)

Roll-front Uranium deposit drilling: A 15,000m reverse circulation (RC) drilling programme commenced during the Quarter at Mkuju in southern Tanzania (Figure 3).

The results of this drilling will provide the Company with significant additional insight into the scope for large Wyoming type 'roll-front' uranium deposits within the approximately 8,000 km^2 of Uranex properties in the Mkuju region.

A total of 71 RC holes for 6,502m of drilling were completed before the onset of the wet season. Preliminary results have suggested a potential 6 x 1 km anomalous trend in the first area targeted, based on initial scintillometer readings of RC sample returns. These results are to be confirmed by downhole probe *e-values,* and reconciled by chemical assay results, both of which are yet to be completed. Analysis and interpretation are ongoing.

Drilling is not expected to re-commence until late in the June Quarter, 2009. Assay reconciliation and interpretation of the probed hole *e-values* is continuing, along with geological mapping and interpretation of all the Company's licences in the Mkuju and Songea areas (Figure 3).

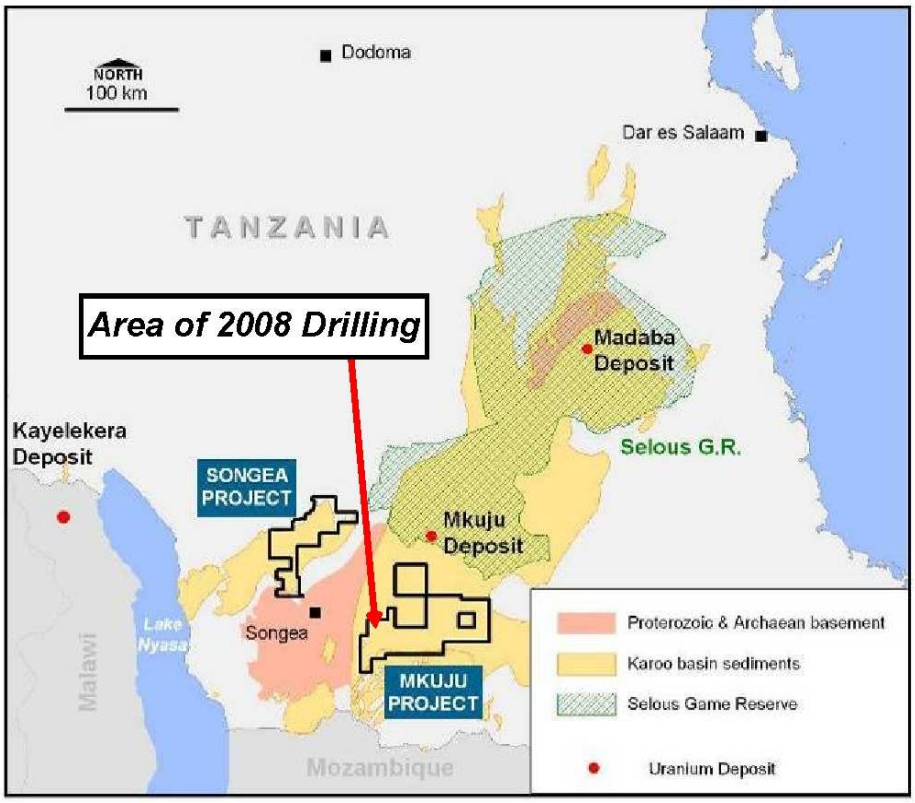


Figure 3. Mkuju and Songea Project Areas

URANEX

AUSTRALIA

Thatcher Soak - Western Australia (Uranex 100%)

Thatcher Soak Resource Estimate: Following the announcement of the initial JORC Inferred Resource estimate at Thatcher Soak in June 2008, the Company completed a Sonic Rig drilling programme, and has now commenced a Scoping Study.

The reported Inferred Resource estimate for Thatcher Soak is as follows:

Cut off U_3O_8 ppm	Tonnes (Million)	Grade U_3O_8 ppm	Contained U_3O_8 (Million Pounds)
100	28	220	14
150	17	290	11

(Rounding errors may occur)

Thatcher Soak Sonic Drilling: Twelve holes were completed during September totalling 193m on a widely spaced pattern covering all three domains within the Inferred Resource. Sonic drilling is now the preferred drilling method for advanced projects at Uranex in unconsolidated shallow sediments. Samples are able to be preserved in close to *in-situ* condition by this method.

The drilling programme facilitates 4 significant outcomes:

1. Accurate density and moisture determinations have now been completed for all litho-types within the resource area. These results will add confidence to the enhanced geological model and contribute to an eventual resource classification upgrade.
2. Conversion to hydrological monitoring holes. Water samples have been dispatched for analysis, and a monitoring programme implemented. This will form part of the Environmental Baseline Study.
3. Selection of high quality samples for metallurgical testing and mineralogy. Work commenced in December 2008 at Ammtec Laboratories in Perth under the technical guidance of Mineral Engineering Technical Services (METS) with preliminary results expected in the March Quarter, 2009.
4. Detailed comparative work on radiometric versus high quality sonic samples. The results of this work will also eventually contribute to a resource classification upgrade through increased confidence levels.

The following photographs (Figures 4 & 5) are illustrative of the excellent sample recovery achieved by the sonic drilling programme undertaken at Thatcher Soak.

Figure 4. High quality Sonic Core Sample

Figure 5. Calcrete mineralisation with dilute acid

Thatcher Soak Scoping Study: An internally managed team comprising DMC Mine Consulting, Enviroworks Consulting, Mineral Engineering Technical Services, Mining Radiation Safety Australia, and Rich Consulting Services (Hydrology) will complete the study during the March Quarter, 2009. As part of the study, the Uranex technical team have considerably enhanced the geological model. This has facilitated a preliminary mine design based on interpreted mineral domains (Figure 6), and the design of a metallurgical composite sample that is both spatially and litho logically representative.

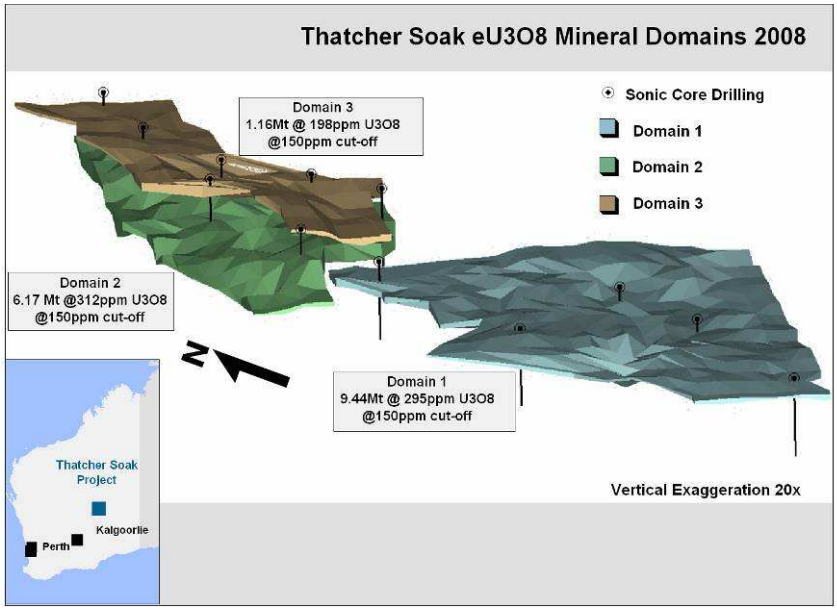


Figure 6. Thatcher Soak Mineral Domains for Preliminary Mine Design

Thatcher Soak Metallurgical Testwork: The programme began in December 2008 as part of the Scoping Study. Early results from particle size analysis indicate future potential to pre-concentrate leach feed by screening off coarse material with minimal loss of uranium. Fines could report to a leach plant with coarse material offering potential for heap leach. This potential is indicated in Figure 7 below.

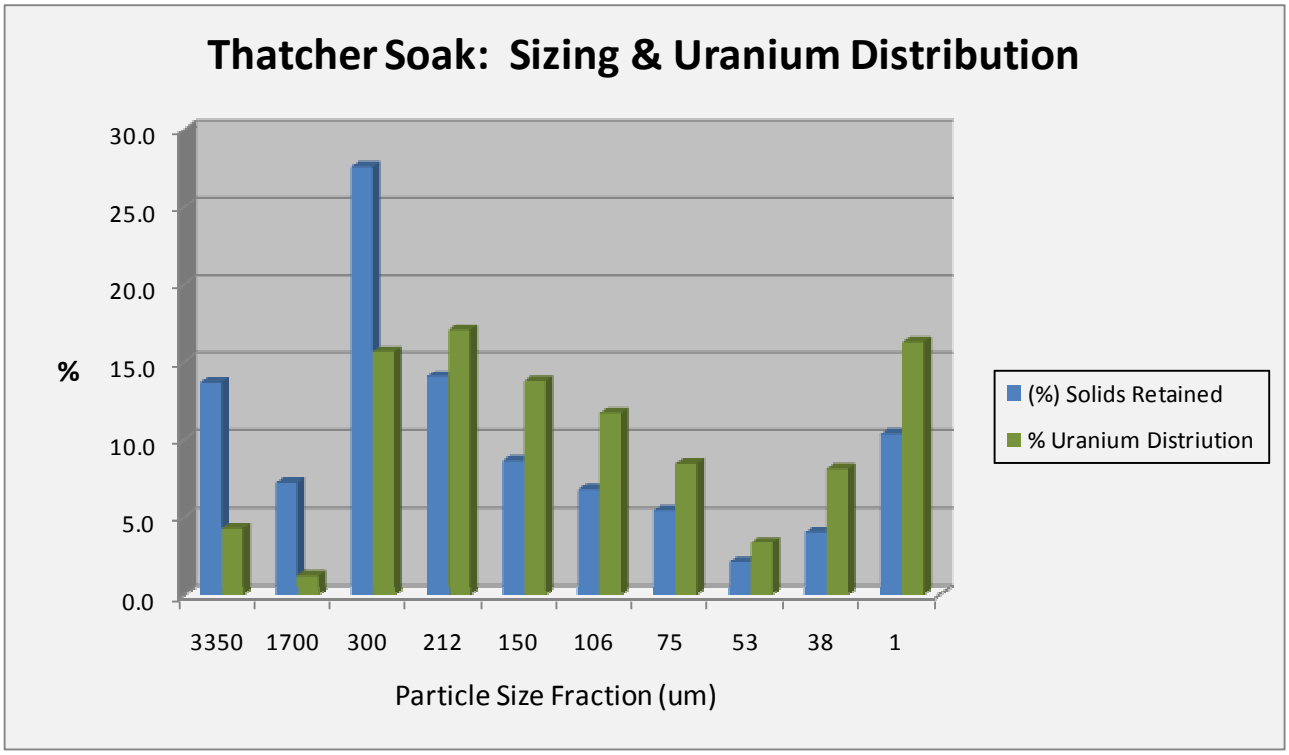


Figure 7. Particle size Uranium distribution analysis

Testwork will continue in the March Quarter 2009 with mineralogy and leach testing.

Thatcher Soak Exploration for 2009: The major programme will commence in the June Quarter, 2009 and will aim to infill an undrilled area known as the Dog-leg Target. This target is approximately 2 km x 400m in extent and lies adjacent to the reported resource. The target lies between Domains 1 and 2/3 shown in Figure 6 above. Access was a constraining factor in earlier programmes.

The same programme will also target an unexplored area on a separate tenement (E38/1854) which lies approximately 7 km northeast of the main Thatcher Soak Resource. The area of potential is known as the Highway Target and lies on the same palaeo-channel as the main resource.

Bremer Basin Project - Western Australia (Uranex 100%)

Anthropological site clearance was completed in November 2008.

Aircore drilling commenced in mid-November on lines across palaeo-channels previously defined by an airborne electromagnetic (AEM) survey. Unseasonal heavy rain made access impossible for the drill trucks and only 16 holes for 790m of the planned 2,000m programme were drilled. This drilling will now be completed in the March Quarter, 2009. The drilling is targeting shallow lignite hosted uranium mineralisation (Mulga Rock style) and roll-front/blanket style redox controlled mineralisation deeper in the palaeo-channels.

Preliminary results have returned indications of uranium and other mineralisation occurrence.

Bynoe Project - Northern Territory (Uranex 100%)

The planned RAB / Aircore drilling was completed in October 2008. A total of 59 holes were drilled for 1,089m. A number of holes returned weakly elevated uranium values associated with suitable graphitic and carbonate host rock litho Logies, including a best result of 66 ppm uranium.

An airborne electromagnetic (AEM) survey was completed in association with Geoscience Australia (GA) in order to outline the location and extent of suitable graphitic litho Logies and other litho-structural targets. Results are not expected to be available until the September Quarter, 2009.

It is now planned to complete a Reverse Circulation (RC) drill programme testing the predicted down dip extensions of uranium mineralisation identified by Idemitsu Uranium Exploration Australia (IUEA) in 1985. IUEA drilled 16 diamond drill holes which resulted in a best intercept of 0.48 kg/tonne U_3O_8 over 1.54m hosted in altered carbonate litho Logies. Activity ceased with the uranium exploration downturn and the mineralisation was not followed up. The mineralisation remains untested down dip.

Alligator Rivers Project - Northern Territory (Uranex 100%)

Love Creek (EL 26164) & Swim Creek (EL 26165)

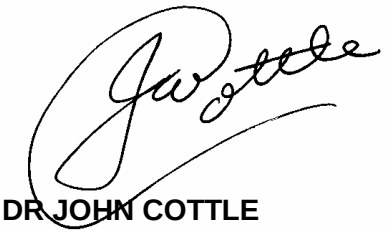
An airborne electromagnetic (AEM) survey was completed in association with Geoscience Australia (GA) in order to outline the location and extent of suitable litho-structural targets within identified favourable stratigrapher. Results are not expected to be available until the September Quarter, 2009.

CORPORATE

Funding and Expenditure

Uranex continues to pursue appropriate future funding arrangements and controls on expenditure, particularly in light of the current global financial downturn.

The Company's cash position is still strong with a holding of $6.8M cash as at 31 December 2008, and formally announced in the accompanying Appendix 5B.



DR JOHN COTTLE
MANAGING DIRECTOR
URANEX NL
61 3 9621 1533

Information in this announcement relating to exploration results is based on data compiled by Dr John Cottle who is a Fellow and Chartered Professional - Geology of the Australasian Institute of Mining and Metallurgy, and who is a director of the Company. Dr Cottle has sufficient relevant experience to qualify as a Competent Person under the 2004 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cottle has signed a certificate consenting to the inclusion of the data in the form and context in which it appears.

NOTES

- Where Uranium mineralisation grades in this report are annotated with a sub-prefix 'e', they have been reported as uranium equivalent grades derived from down-hole gamma ray logging results and should be regarded as approximations only.
- Gamma logging or "total count gamma logging" (the method used by Uranex) is a common method used to estimate uranium grade where the radiation contribution from thorium and potassium is very small. Sandstone and calcrete hosted deposits are usually of this type. Gamma logging does not account for energy derived from thorium and potassium (as does spectral gamma logging) and thus the result is expressed as an equivalent value or eU_3O_8.
- The gamma radiation from potassium, uranium and thorium is dominated by gamma rays at specific energy levels. These energy levels are sufficiently well separated such that they can be measured independently of each other. They are typically measured as narrow energy bands that contain the specific energy levels. Bands are used because the measuring systems do not have the resolution to target a specific energy wavelength. There is some scattering of higher energy gamma radiation, eg thorium, into lower energy radiation, eg uranium and potassium. This scattered radiation can be calculated from suitable calibration procedures and removed from the lower energy level measurements. This method is commonly termed spectral gamma logging.
- Uranex's independent contractor uses gamma probes which are initially calibrated at the PIRSA (Primary Industry & Resources South Australia) test pits and then subjected to annual recalibration to ensure the integrity of the probe instrument.

Rule 5.3

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

Uranex NL

ABN	Quarter ended ("current quarter")
26 115 111 763	31 December 2008

Consolidated statement of cash flows

	Cash flows related to operating activities	Current quarter $A'000	Year to date (6 months) $A'000
1.1	Receipts from product sales and related debtors	28	62
1.2	Payments for		
	(a) exploration and evaluation	(1,441)	(2,390)
	(b) development	-	-
	(c) production	-	-
	(d) administration	(853)	(1,409)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	145	353
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	**(2,121)**	**(3,384)**
	Cash flows related to investing activities		
1.8	Payment for purchases of:		
	(a)prospects	-	-
	(b)equity investments	-	-
	(c) other fixed assets	(300)	(696)
1.9	Proceeds from sale of:		
	(a)prospects	-	-
	(b)equity investments	-	-
	(c)other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	10	-
1.12	Other (provide details if material)	31	(130)
	Net investing cash flows	**(259)**	**(826)**
1.13	*Total operating and investing cash flows (carried forward)*	*(2,380)*	*(4,210)*

+ See chapter 19 for defined terms.

1.13	*Total operating and investing cash flows (carried forward)*	*(2,380)*	*(4,210)*
	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	**(2,380)**	**(4,210)**
1.20	Cash at beginning of quarter/year to date	9,213	11,033
1.21	Exchange rate adjustments to item 1.20	-	10
1.22	**Cash at end of quarter**	**6,833**	**6,833**

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	163
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Directors remuneration entitlements, expenses and legal fees.

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

-

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

-

+ See chapter 19 for defined terms.

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	-	-
3.2	Credit standby arrangements	-	-

Estimated cash outflows for next quarter

		$A'000
4.1	Exploration and evaluation	2,000
4.2	Development	-
	Total	**2,000**

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	68	83
5.2	Deposits at call	6,765	9,130
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	**6,833**	**9,213**

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	-	-	-	-
6.2	Interests in mining tenements acquired or increased	-	-	-	-

+ See chapter 19 for defined terms.

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** *(description)*				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	**+Ordinary securities**	83,455,100 5,140,000 500,000	83,455,100 - -	 64 cents 96 cents	 1 cent 1 cent
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5	**+Convertible debt securities** (*description)*				
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	**Options** *(description and conversion factor)*	2,550,000 3,250,000	- -	*Exercise price* 30 cents 34 cents	*Expiry date* Up to 6 months after retirement of employee/director
7.8	Issued during quarter	 2,550,000 3,250,000	 - -	 30 cents 34 cents	 Up to 6 months after retirement of employee/director
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	**Debentures** *(totals only)*				
7.12	**Unsecured notes** *(totals only)*				

+ 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 /~~does not~~* *(delete one)* give a true and fair view of the matters disclosed.

Sign here: .... Date: 30 January 2009
(Managing Director/~~Company secretary~~)

Print name: John Cottle

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.