

QUARTERLY REPORT

For period ending 30 June 2009

Argonaut Resources NL is pleased to deliver the following report for the Quarter to 30 June 2009.

Highlights

Kroombit, Australia

During the Quarter, Argonaut announced a maiden resource estimate of approximately six million tonnes of zinc and copper mineralisation at the Company's 100% owned Kroombit deposit in Central Queensland.

The Indicated and Inferred Resources comprise:

- **a Zinc Resource of 5.2 million tonnes grading at 1.9% zinc and 0.15% copper** at a cut-off of 1.0% Zn, for 98,800 tonnes of zinc and 7,800 tonnes of copper and
- **a Copper Resource of 0.9 million tonnes at 1.0% copper** at a cut-off of 0.5% Cu for 9,000 tonnes of copper.

In addition, Exploration Results are reported comprising a **defined Exploration Potential** of between:

- **1 million and 1.5 million tonnes at 1.5% to 2.0% zinc**, and between
- **0.5 million and 1 million tonnes at 0.7% to 1.3% copper.**

Cash

- At 30 June 2009 Argonaut had cash and deposits of \$6.7 million and no debt.
- Subsequent to the Quarter Argonaut sold 4 million Hillgrove Resources Ltd. (ASX: HGO) shares for total consideration of 0.98 million dollars.

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Exploration

Australia

Kroombit Cu-Zn Deposit (Argonaut 100%)

In the Quarter to 30 June 2009, Argonaut announced a maiden resource estimate of approximately six million tonnes of zinc and copper mineralisation at the Company's 100% owned Kroombit deposit in Central Queensland. The resource estimates are reported in accordance with the JORC (2004) Code.

The Indicated and Inferred Resources comprise:

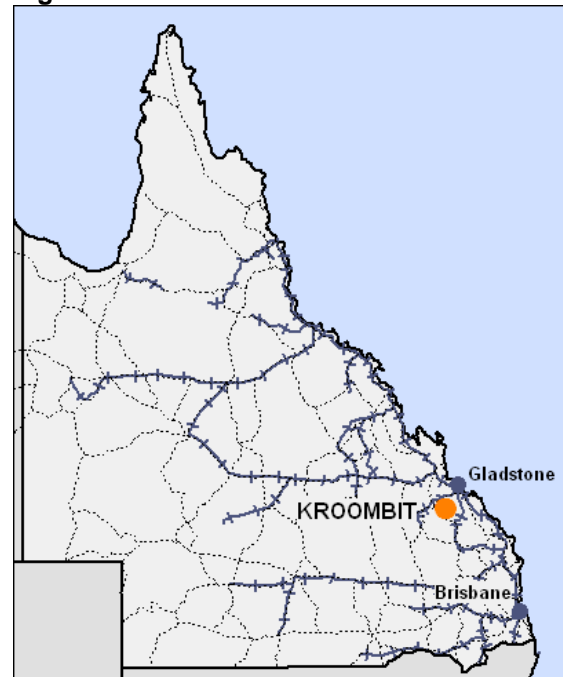
- a zinc resource of 5.2 million tonnes grading at 1.9% zinc and 0.15% copper at a cut-off of 1.0% Zn, for 98,800 tonnes of zinc and 7,800 tonnes of copper
- a copper resource of 0.9 million tonnes at 1.0% copper at a cut-off of 0.5% Cu for 9,000 tonnes of copper and
- giving a combined copper resource of 16,800 tonnes from the zinc & copper Resource models.

The resource estimates, announced in June 2009, were completed by independent geological consultants, Hellman & Schofield Pty Ltd.

In addition, Exploration Results are reported comprising a defined Exploration Potential of between:

- 1 million and 1.5 million tonnes at 1.5% to 2.0% zinc, and between
- 0.5 million and 1 million tonnes at 0.7% to 1.3% copper.

Figure 1: Kroombit location



These findings confirm there is **significant potential for additional copper and zinc mineralisation**, both below the existing deposits and around the periphery of the defined resource.

To safeguard potential extensions to the original deposit, Argonaut holds 100% of two surrounding Mineral Exploration Permits (EPMs) and has applied for a further two EPMS, where it plans to conduct exploration for further base metal deposits (Figure 2). All four areas include prospective geological features and historical zinc and copper mineral occurrences.

Argonaut also received highly encouraging results from zinc sulphide flotation tests, which produced a **zinc concentrate grading 58% zinc with an 87% recovery rate**.

The resource estimation results strongly support Argonaut's plans to establish an open-cut operation at the Kroombit project, located 100 kilometres from Gladstone in Central Queensland.

Resource Estimation

The Indicated and Inferred Resources for zinc and copper mineralisation were estimated by Simon Tear who is an independent geologist and Competent Person under the 2004 JORC Code and is a full-time employee of Hellman & Schofield Pty Ltd.

The findings were based on the results of an extensive drilling program undertaken by Argonaut in 2007-08, comprising 197 reverse

circulation drill holes and four diamond drill holes.

Zinc Resource

The zinc resource estimate is reported using a 1% zinc cut-off grade for oxide, transition and sulphide material constrained within the zinc mineralisation wireframe. The resources have been modelled and classified according to the assumption that they will be selectively mined in an open pit.

Global Zinc Resource		1 % Zn cut off		Ave Density = 2.78t/m³	
Category	Tonnes	Zinc %	Copper %	Zn Tonnes	Cu Tonnes
Indicated	5,000,000	1.9	0.15	94,000	7,600
Inferred	200,000	1.8	0.12	3,000	200
Total	5,200,000	1.9	0.15	97,000	7,800

Oxide		1 % Zn cut off		Ave Density = 2.29t/m³	
Category	Tonnes	Zinc %	Copper %	Zn Tonnes	Cu Tonnes
Indicated	800,000	2.1	0.16	16,000	1,150
Inferred	100,000	1.9	0.08	1,000	50
Total	900,000	2.1	0.15	17,000	1,200

Transition		1 % Zn cut off		Ave Density = 2.84t/m³	
Category	Tonnes	Zinc %	Copper %	Zn Tonnes	Cu Tonnes
Indicated	700,000	1.9	0.12	12,000	800
Inferred	30,000	1.7	0.10	1,000	50
Total	700,000	1.9	0.12	13,000	850

Sulphide		1 % Zn cut off		Ave Density = 2.91t/m³	
Category	Tonnes	Zinc %	Copper %	Zn Tonnes	Cu Tonnes
Indicated	3,600,000	1.8	0.16	66,000	5,600
Inferred	100,000	1.8	0.18	1,000	100
Total	3,700,000	1.8	0.16	67,000	5,700

(Totals may not sum due to rounding errors)

(Use of significant figures does not imply precision)

Zinc Exploration Potential

Based on Ordinary Kriging of existing drill hole data, Hellman & Schofield has defined Exploration Potential for zinc mineralisation between 1,000,000 and 1,500,000 tonnes at 1.5% to 2.0% Zn. This is peripheral to the currently defined zinc mineralisation wireframe (Figure 3). This potential is based

on grades that were generated outside the zinc wireframe using a maximum search distance of 45 metres. This potential mineralisation has had insufficient exploration to define a Mineral Resource. It is uncertain whether further drilling will convert this to a Mineral Resource.

Copper Resource

Additional copper mineralisation constrained within the copper wireframes at depth and

outside the zinc mineralisation wireframe is reported at a 0.5% copper cut-off.

<u>Copper Sulphide Resource</u>		0.5 % Cu cut off	Ave Density = 3.22t/m³
Category	Tonnes	Copper %	Cu Tonnes
Indicated	730,000	1.06	7,700
Inferred	130,000	0.91	1,200
Total	860,000	1.04	8,900

(Totals may not sum due to rounding errors)

(Use of significant figures does not imply precision)

Copper Exploration Potential

Based on Ordinary Kriging of existing drill hole data, Hellman & Schofield has defined Exploration Potential for copper mineralisation between 500,000 and 1,000,000 tonnes at 0.7% to 1.3% Cu, peripheral to the currently defined zinc and copper wireframes (Figure 4). This potential is based on grades that were generated outside the copper wireframes using a maximum search distance of 45 metres. This potential mineralisation has had insufficient exploration to define a Mineral Resource. It is uncertain whether further drilling will convert this to a Mineral Resource.

Additional Potential at Depth

Additionally, Hellman & Schofield has commented that there is a substantial potential for additional copper and zinc mineralisation at depth beneath the zinc mineralisation wireframe. This is based on a consideration of isolated drill-hole intercepts outside the currently defined zinc and copper mineralisation wireframes and the periphery Exploration Potential.

Additional Potential for Mineralisation in Untested Areas

RC drilling rig access to certain areas central and peripheral to the main zinc-copper resource area was restricted. All of the areas where access was restricted are in the vicinity of historical mine workings including two areas with adits (targeting copper) and an area

adjacent to several small pits and shafts (Figure 5). Infill drilling using appropriate equipment and environmental management is planned for these areas.

The results of four diamond core holes twinning four RC holes suggests that the diamond drill core contains higher overall zinc grades for the main mineralised intercepts, implying that the RC data is slightly understating the zinc values by possibly up to 15%. It should be noted that this opinion is based on a limited amount of data but Argonaut will undertake further work to validate it.

Metallurgy

Preliminary flotation test-work was undertaken by HRL Testing using samples sourced from Argonaut's 2007 RC drilling samples. Zinc sulphide flotation tests on a sample with a zinc head grade of 2.31% Zn succeeded in producing a zinc concentrate grading 58% Zn at 87% recovery.

Further zinc flotation test-work was undertaken by Optimet Laboratories using samples sourced from 2008 diamond core. Initial tests by Optimet succeeded in producing a zinc concentrate **grading 55.4% Zn at 87% recovery** from a master zinc sulphide composite sample with a head grade of 2.25% Zn.

The ability to produce a high-grade zinc concentrate from a diamond core composite

sample with a grade of 2.25% Zn is very encouraging.

Building on the maiden resource

Hellman & Schofield has identified significant Exploration Potential around the periphery of the defined zinc and copper resources.

Building on the maiden resource through additional resource drilling will be a key focus for Argonaut as it advances its exploration program at Kroombit

The company also plans to augment the project's principal resource by conducting exploration for similar base-metal deposits in areas within trucking distance of the initial deposit.

To supplement the Company's 100% held EPMs 15733 and 15734, Argonaut has recently applied for two additional EPMs (Figure 2) covering further base-metal targets defined by previous exploration.

Building on the existing resource base and an increasing knowledge of the geological terrain through additional resource drilling and the exploration of neighbouring prospects is a logical next step as the Company continues its development of the Kroombit project.

EL3195, Torrens (Argonaut 100%)

Argonaut is exploring for iron-oxide copper-gold ("IOCG") systems in the highly prospective Stuart Shelf region of South Australia (Torrens Project) via the Torrens Joint Venture between Argonaut and Straits Resources Ltd. (ASX: SRL).

The Torrens Project is located near the eastern margin of South Australia's Gawler Craton region (Stuart Shelf), within 50 kilometres of Teck Cominco's Carapateena copper-gold discovery and 75 kilometres from BHP Billiton's Olympic Dam mine.

During the quarter, the overlapping claim issue has been progressed, with the new Kokatha

Uwankara claim being lodged with the Federal Court. The Joint Venture is currently in discussion with both the State Government and the new claimant group to progress the access matter.

Straits Resources Ltd. has the right to earn a 70% interest in the project, pursuant to the terms of the Joint Venture, by spending \$7 million on exploration. Argonaut currently holds 100%.

EL3037, Alford (Argonaut 80%)

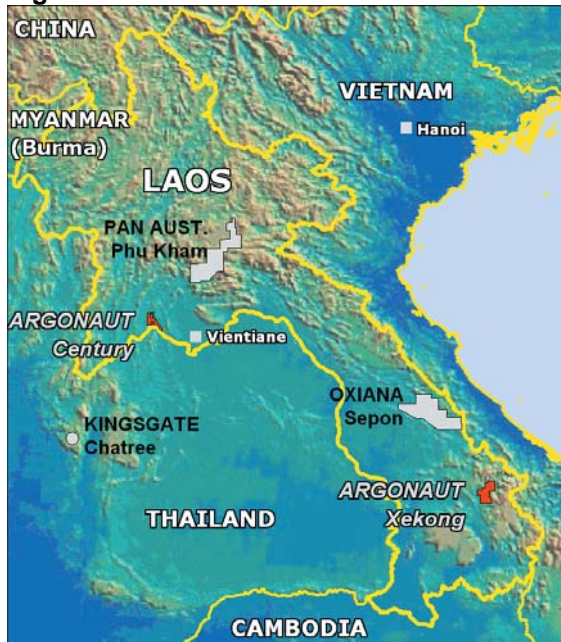
Argonaut's Joint Venture partner, Hillgrove Resources Ltd can earn a 70% interest by spending \$4 million on exploration.

EL3193 and EL3075, Aroona (Argonaut 100%)

No exploration work was undertaken on EL3195 or EL3075 during the Quarter. These tenements are currently subject to a joint venture agreement with Perilya Limited.

Laos

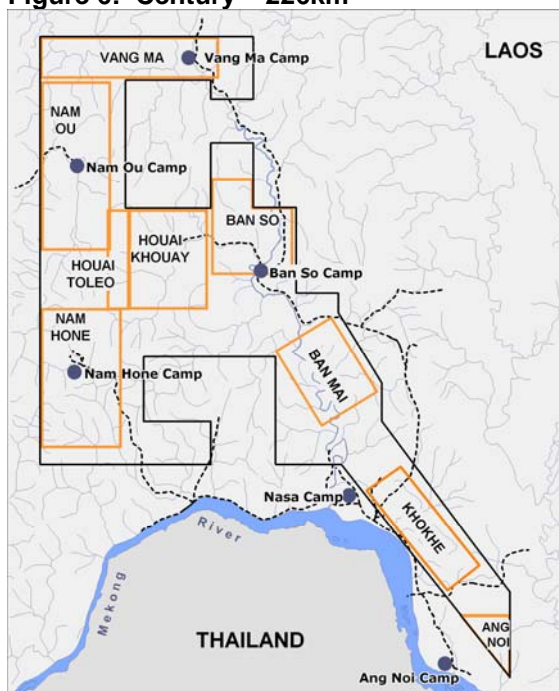
Figure 2: Laos



Century Area (Argonaut 70%)

Argonaut maintained its exploration presence at Century during the Quarter. Field activity included continued evaluation of gold targets at the Houai Khouay and Vang Ma prospects and reassessment of previous exploration results at Khohke and Nam Hone prospects (Figure 6).

Figure 6: Century – 226km²

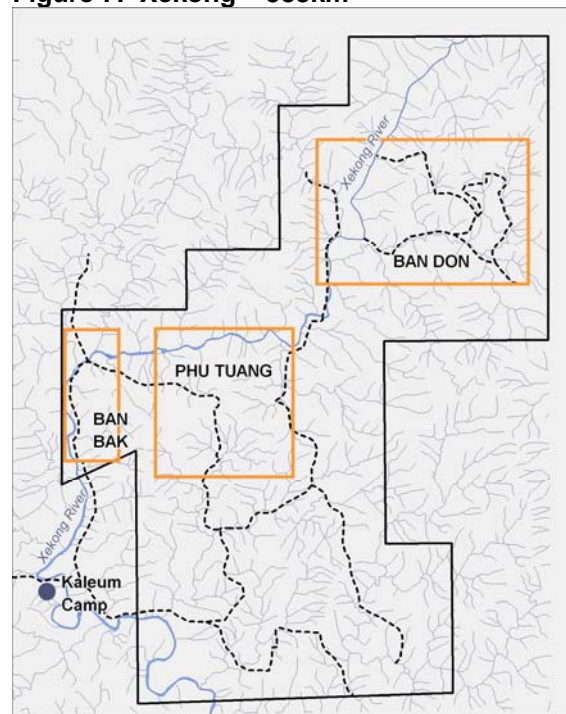


Xekong Area (Argonaut 65%)

The company has defined seven prospective areas over the 588 square kilometre tenement at Xekong. The most prospective area defined by reconnaissance sampling is a prospect known as Ban Bak.

Field work was not undertaken at Xekong in the Quarter due to prevailing wet season conditions.

Figure 7: Xekong – 588km²



Ban Bak Prospect

The principal gold mineralisation at Ban Bak appears to be strata-bound, replacement style gold mineralisation hosted in a silicified mudstone, stratigraphically above a decalcified bioclastic limestone.

Mineralisation at Ban Bak is spatially associated with porphyry intrusions which, in many cases, are related to separate economically viable deposits.

The mineralised areas were identified using a gold, arsenic and antimony geochemical signature in soil samples. This geochemical 'fingerprint' has been used in the discovery of numerous economic gold deposits.

Corporate

Subsequent to the Quarter, the company received confirmation that the sale of its remaining 4 million shares in Hillgrove Resources Ltd. (ASX: HGO) had been completed for a net return of \$983,312.

These shares represented the final balance of shares acquired from the sale of the company's interest in EL3277, Kanmantoo, to Hillgrove, announced on 19 March 2008. The sale of EL3277 was satisfied by the issue of 10 million Hillgrove shares, valued in March 2008 at \$2,500,000.

Graeme Ellis
Managing Director
Argonaut Resources NL

The data in this report that relates to Mineral Resources for the Mt Kroombit Deposit is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience 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 (the "JORC Code"). Mr Tear is a full-time employee of Hellman & Schofield Pty Ltd and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

The resource estimate is based on a total of 16,972 assays from 201 drill holes completed by Argonaut within the past two years. Drilling has consisted of predominantly RC with some minor diamond drilling. Drill hole spacing is a nominal 25m by 25m but locally drops to 20m on cross section lines. A 1m composite interval for the drill hole assay data was used in conjunction with Ordinary Kriging modelling to generate resource estimates for the deposit. Maximum search distances used for copper and zinc are 45 metres with 16 minimum data required for Indicated and 8 for Inferred with data required in 4 and 2 octants, respectively. Zinc mineralisation was defined by a single wireframe. The copper wireframes were based on a series of quartz hematite zones within which the copper mineralisation largely occurs. These are outside the zinc mineralisation wireframe. Density is based on 173 samples from four diamond drill holes and was modelled using inverse distance weighting on average density values assigned to the RC coded geology.

Sections of information contained in this report that relate to Exploration Results were compiled or supervised by Mr Lindsay Oowler BSc, MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of Argonaut Resources NL. Mr Oowler has sufficient experience which is relevant to the style of mineral deposits 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 Mineral Resources and Ore Reserves". Mr Oowler consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

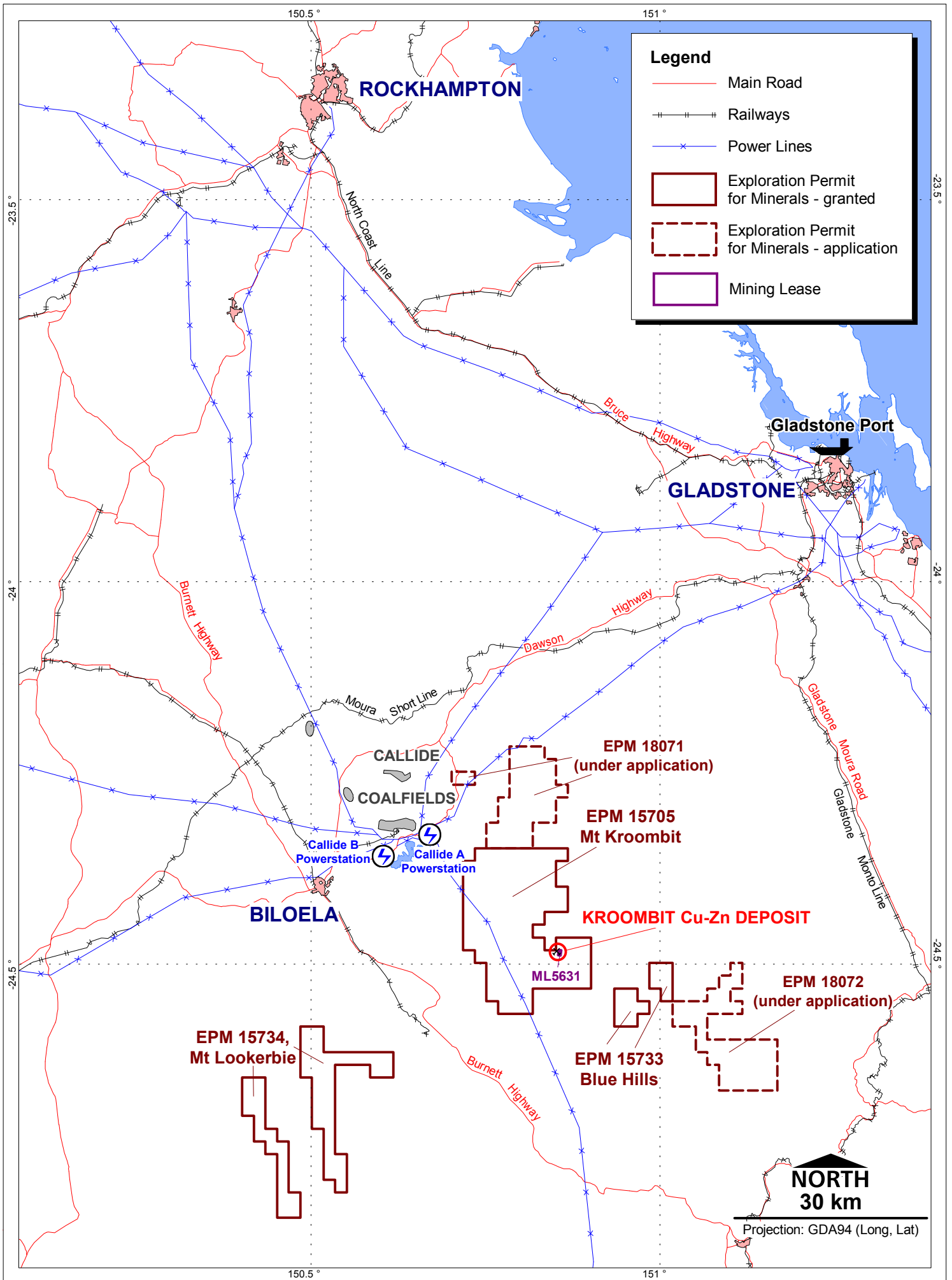
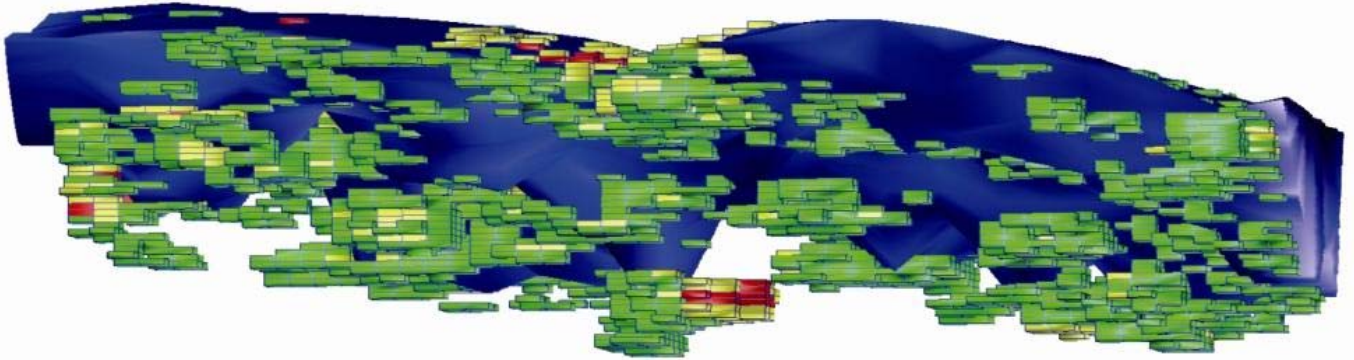


Figure 3 - Areas of Zinc Exploration Potential

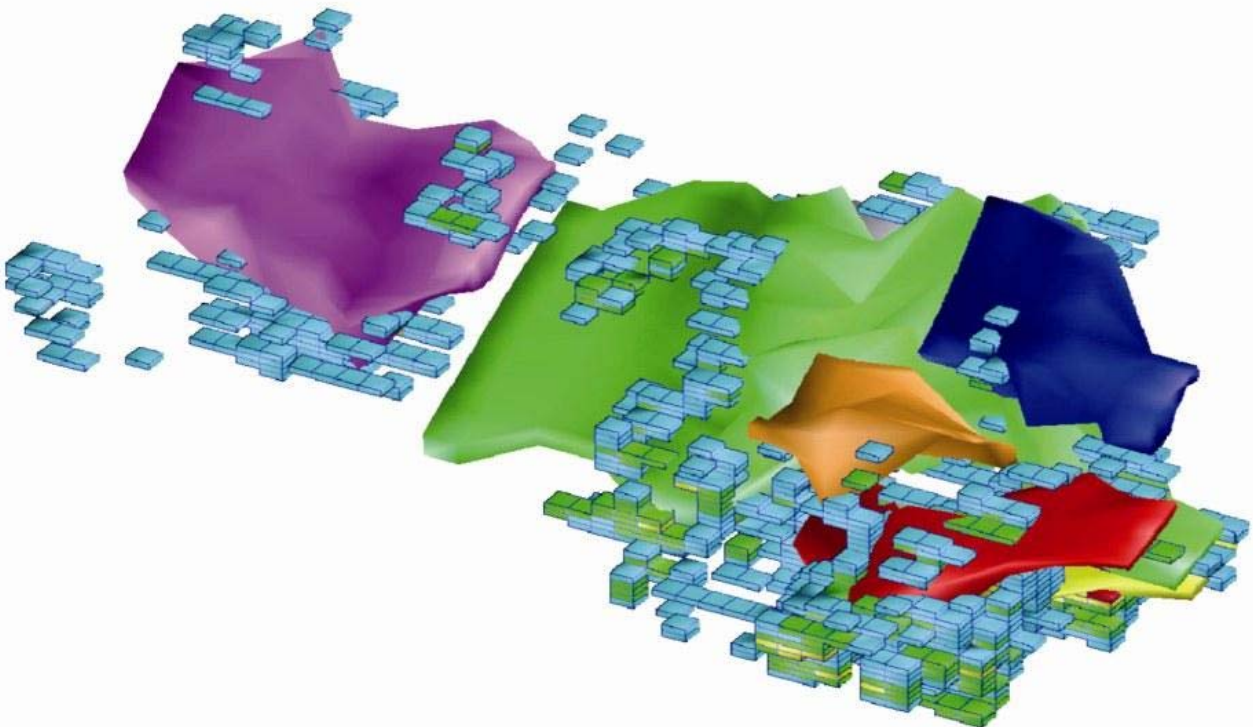
This figure shows the zinc wireframe referred to in the text in blue plus blocks from the zinc block model generated by unrestrained Ordinary Kriging of the drill data that fall outside the zinc wireframe. These blocks constitute areas of zinc Exploration Potential.



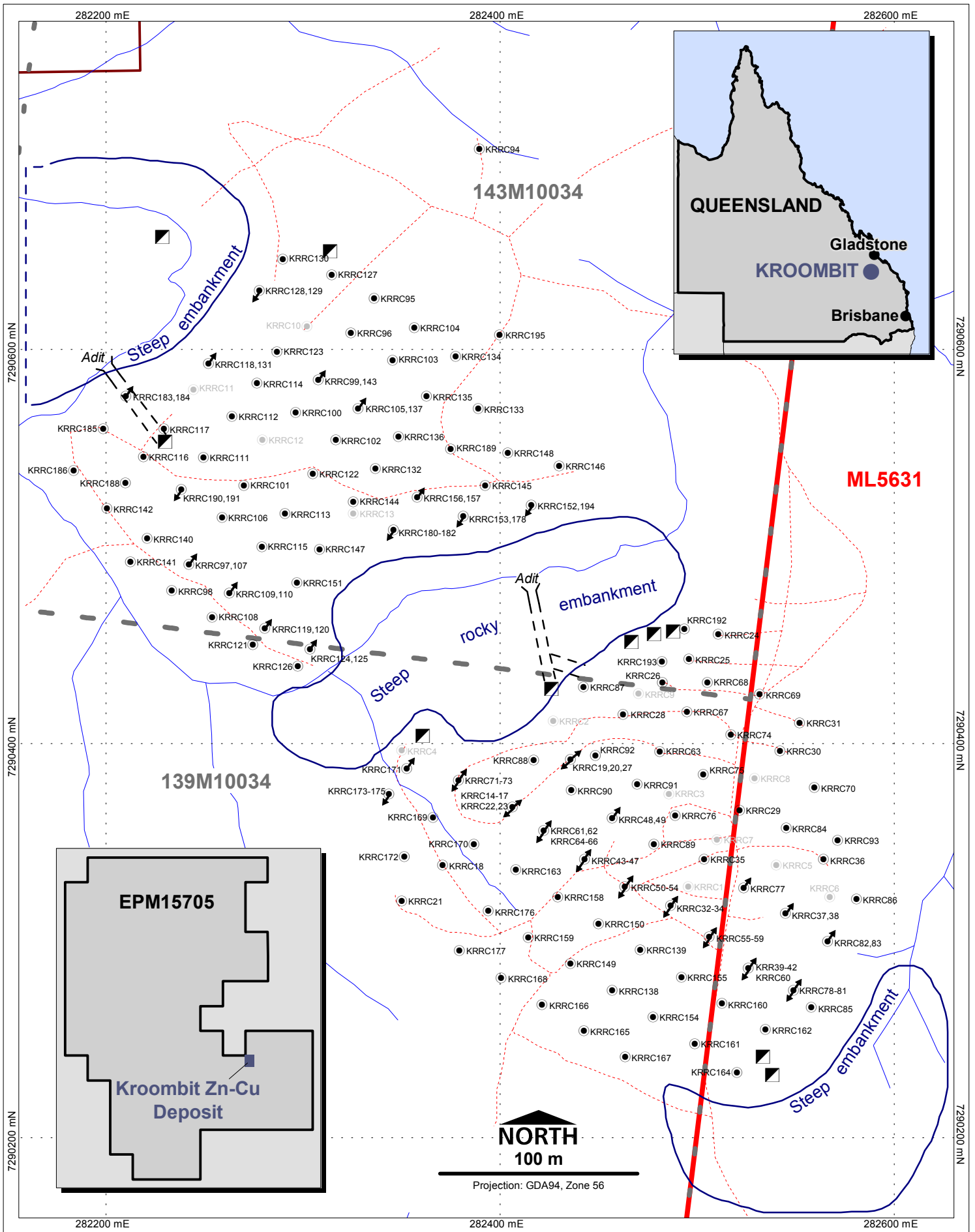
View grid south and slightly up: green blocks = 1-2% Zn, yellow = 2-4% Zn, red = >4% Zn
Blue shape = Zn wireframe

Figure 4 - Areas of Copper Exploration Potential

Figure 3 shows the copper wireframes referred to in the text in various colours plus blocks from the copper block model generated by unrestrained Ordinary Kriging of the drill data that fall outside the copper wireframes. These blocks constitute areas of copper Exploration Potential.



View grid NW and down; cyan blocks = 0.5-1% Cu, green = 1-2% Cu, yellow = 2-3% Cu, red = >3% Cu
Shapes = Cu wireframes



- Legend**
- Complete drillholes
 - ↕ Fan of 5 drillholes
 - ↗ Pair of one vertical and one angle drillhole
 - Previous Argonaut drillholes
 - Shafts
 - Track
 - ▭ Argonaut freehold
 - ▭ Future resource drilling areas



**EPM 15705, Kroombit Zn-Cu Deposit
Resource Drilling Program**

Figure 5 Date: 9 June 2009

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

Argonaut Resources NL

ABN

97 008 084 848

Quarter ended ("current quarter")

30 June 2009

Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (twelve (12) months) \$A'000
1.1 Receipts from product sales and related debtors		100
1.2 Payments for		
(a) exploration and evaluation	(388)	(4,208)
(b) development		
(c) production		
(d) administration	(277)	(1,595)
Included \$173,000 expenses from previous quarter unrepresented at 31 March 2009	(173)	
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	70	463
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material) includes abnormal costs, fraud recovery related	(81)	172
Net Operating Cash Flows	(849)	(5,068)
Cash flows related to investing activities		
1.8 Payment for purchases of:		
(a) prospects		
(b) equity investments		
(c) other fixed assets	(22)	(535)
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		
1.12 Other (provide details if material)		(16)
Net investing cash flows		(551)
1.13 Total operating and investing cash flows (carried forward)	(871)	(5,619)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(871)	(5,619)
	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)	(.8)	(7)
	Net financing cash flows	(.8)	(7)
	Net increase (decrease) in cash held	(872)	(5,626)
1.20	Cash at beginning of quarter/year to date	7,752	12,325
1.21	Exchange rate adjustments to item 1.20		
1.22	Cash at end of quarter	6,699	6,699

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	145
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 fees, directors wages and superannuation.

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

--

Financing facilities available

Add notes as necessary for an understanding of the position.

Amount available \$A'000	Amount used \$A'000

+ See chapter 19 for defined terms.

3.1	Loan facilities		
3.2	Credit standby arrangements		

Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	150
4.2	Development	
Total		150

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	6,699	7,572
5.2 Deposits at call		
5.3 Bank overdraft		
5.4 Other (provide details) Unpresented cheques		
Total: cash at end of quarter (item 1.22)	6,699	7,572

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.

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.

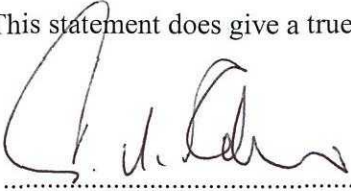
		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference securities <i>(description)</i>				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	+Ordinary securities	165,244,720	165,244,720		
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>	750,000 2,500,000 500,000 3,000,000		<i>Exercise price</i> .30 cents .30 cents .30 cents 1.00 dollar	<i>Expiry date</i> 10.09.2009 15.12.2009 21.12.2009 29.11.2009
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter				
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 give a true and fair view of the matters disclosed.

Sign here: 
(Director)

Date: 30th July 2009

Print name: Graeme Allen Ellis

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.