



## REVIEW OF OPERATIONS FOR THE QUARTER ENDED 31<sup>st</sup> DECEMBER 2011

Perth, Australia – 31 January 2012 – Elemental Minerals Ltd. (ASX, TSX: ELM) ("Elemental" or "the Company") is pleased to provide the following quarterly update.

### ACTIVITIES

- The Phase 2 exploration field programme comprising some 41 drill holes (9,600 metres) for resource infill, resource expansion, geotechnical and hydro-geological purposes, as well as a 2D seismic survey continued. Resource delineation and extension drilling that is also providing structural and geotechnical data for pre-feasibility study (PFS) input, continued with six drill holes completed by quarters end and four in various stages of completion. Of the 18 hydrogeological wells planned 16 are now complete.
- Completion of trade off studies and definition of the project configuration for the PFS was achieved.
- Completion of scoping social and Republic of Congo ('ROC') government regulator engagements was finalised.
- Upgrade of field camp to 110 personnel.

### Pre-Feasibility Study and Phase 2 Exploration Programme

The Company continued with the pre-feasibility phase of its definitive feasibility study ("DFS") for the Sintoukola potash project this quarter, including the Phase 2 field programme. This programme aims to increase the level of confidence in the Mineral Resource and to extend the footprint of the same by a further 30km<sup>2</sup> and also undertake an extensive geotechnical and hydrogeological program in support of mine engineering design.

The drilling component of the Phase 2 programme (Figure 2) now consists of a total of 41 drill holes for 9,600 metres. Of the total holes, 19 drill holes are designed for the gathering of geotechnical, structural, resource extension drilling and a further 22 hydro-geological drill holes will provide the required data for the company's PFS and updated NI 43-101 Mineral Resource estimate.

The resource delineation and extension drilling that is also providing structural and geotechnical data for PFS input, continued with six drill holes completed by quarters end and four in various stages of completion. Sylvinite intersection assay results are expected to start being received

next quarter.

- EK\_17(336.70 metres EOH)
- EK\_18(317.45 metres EOH)
- EK\_19(302.06 metres EOH)
- EK\_20 (320.45 metres EOH)
- EK\_21(209.88 metres EOH) terminated in dolomites after drilling conditions deteriorated
- EK\_22 (313.65 metres EOH)

Four exploration holes were in progress at month end including EK\_23, EK\_24, EK\_25 and EK\_26.

The Phase 2 hydro-geological drill work is nearing finality with 16 of the 22 planned hydrogeological wells now complete and pump testing about to start.

In parallel to the Phase 2 drilling programme, a 164 line kilometre high resolution seismic survey in support of the delivery of a planned update to the Mineral Resource statement for estimation of Mineral Reserves was completed in November 2011. The current drilling program aims to collect sufficient information to allow conversion of much of the currently identified Indicated Mineral Resources into the Measured category.

### Pre-Feasibility Trade-Off Studies

The study team consisting of Elemental staff, SRK Consulting, AMEC Americas and EGIS International advanced the Pre-Feasibility study on the basis of the newly defined project configuration, with good progress having been achieved in the following areas.

**Geotechnical study:** A fourth site visit was conducted by SRK (UK) to continue logging and sampling of core samples. A third suite of samples was shipped for characterization and strength testing which is currently being conducted by laboratories in Cardiff, Leipzig and Denver.

**Hydrogeological study:** 10 hydrogeological holes have been equipped and are ready for piezometer testing, which will be conducted by SRK (US) during January 2012. The drilling and equipping of two well sets are underway and will also be ready for test work in January 2012.

**Mining:** Trade off studies and decision logs were produced on various issues including mine access, mining thickness and mining ramp up period. The studies supported the following decisions:

- Shaft access was preferable to decline access
- A combination of Upper Seam 1 and Upper Seam 2 should be targeted for mining extraction, guided by equipment selection and practical constraints rather than grade only.
- Preliminary mining studies are underway. The current most aggressive mining schedule achieves full production in Year 3. This period excludes the shaft sinking and equipment

preparation schedule, which is still being developed.

Based on these decisions the SRK (US) study team initiated work on equipment selection, shaft design and ventilation design.

**Processing:** Based on the encouraging results produced by the metallurgical test program, Amec has advanced the study and have completed the mass balance, process flow diagrams, 3D modeling and layouts and equipment lists. Mechanical specifications have been issued for estimating purposes. The bulk of the engineering work will begin in the first week of February and will be complete by the first week of March.

**Tailings storage facility:** A separate test program was initiated at the Saskatchewan Research Council to generate an insoluble sample and undertake geotechnical test work for design inputs into the tailings storage facility. This design is managed by SRK (Perth).

**Infrastructure:** The Company initiated an elaborate survey program on the basis of the redefined project configuration. The program, which was supervised by Egis International was completed in December 2011 and included the following elements:

- Lidar topographic survey to provide a topographical map of the project area to an accuracy of 10 centimetres.
- Beach topographical survey
- Bathymetric survey covering 25km<sup>2</sup> in the identified site for the jetty loading facility
- 10 Offshore and 10 onshore seismic refraction survey lines in the proposed Jetty and plant locations.
- A geotechnical program consisting of 40 test pits, 16 boreholes and 16 CPT test on the transport corridor, plant and camp location.
- A metocean study

In parallel to the survey program, study work continued on the following disciplines:

- Jetty loading facility including a port operation study, jetty and platform arrangements, wave transfer modelling, breakwater layout and shipping and barging studies.
- Road and rail alignments and trucking studies to identify the most suitable transport fleet.
- Brine dispersion modelling to identify the lowest environmental impact solution for disposing of NaCl brine into the ocean.
- Water supply, power supply and drainage design field visits completed.
- Surface and employee facility design.

**Environmental and Social Impact Assessment** The following activities have been completed as part of the environmental and social impact assessment studies, which are managed by SRK Consulting:

- Scoping study including consultations with regulators, local communities, local government and relevant NGO's.

- Development of Terms of Reference for the baseline studies
- Baseline reconnaissance visits for:
  - Social and indigenous people
  - Biodiversity
  - Cultural heritage
  - Health Impact
  - Natural Resources
  - Marine biodiversity

**Project Management:** In preparation of the estimating phase, work has proceeded on final definition of the Work Breakdown Structure, estimating methodology and economic modelling requirements.

-ENDS -

### About Elemental Minerals

Elemental Minerals Limited is an advanced mining exploration and development company that aims to grow shareholder value through its 93%-owned Sintoukola Potash Project on the Republic of Congo coastline. Elemental Minerals is dual listed on the Australian Stock Exchange and the Toronto Stock Exchange under the symbol ELM. For more information, visit [www.elementalmineralsltd.com](http://www.elementalmineralsltd.com)

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### Mineral Resource Summary – Kola Deposit of Sintoukola Project

- The Sintoukola Project's Kola deposit currently contains 362 Mt Indicated Mineral Resources and 442 Mt Inferred Mineral Resources, with an average grade of 19.5% K<sub>2</sub>O (30.8% KCl) and 19.6% K<sub>2</sub>O (31.0% KCl) respectively, at a 15.0% K<sub>2</sub>O cut-off grade.
- Within such Mineral Resources, the upper seam of the Kola deposit contains 229 Mt Indicated Mineral Resources and 289 Mt Inferred Mineral Resources, grading at 21.3% K<sub>2</sub>O (33.8% KCl) and 21.4% K<sub>2</sub>O (33.9% KCl) respectively, which upper seam is a higher-grade sylvinite only zone.

- The upper seam has a high-grade domain containing 151 Mt Indicated Mineral Resources and 186 Mt Inferred Mineral Resources, grading at 25.1% K<sub>2</sub>O (39.7% KCl) and 25.2% K<sub>2</sub>O (40.0% KCl) respectively, at a 20.0% K<sub>2</sub>O cut-off grade of pure sylvinite in a largely continuous mineralized horizon. This deposit is contained within 28 km<sup>2</sup> of the current 1,400 km<sup>2</sup> license area and current exploration activities aim to test a much larger area of the license to further expand resources.
- The Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2004 Edition (The JORC Code), which is consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards 2005 and hence complies with NI 43-101

#### **Competent Person / Qualified Person Statement:**

Information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Simon Dorling and Jeff Elliott, of CSA Global Pty Ltd, the Company's geological consultants. Dr. Dorling and Mr. Elliott are members of the Australian Institute of Geoscientists (MAIG) and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are 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). Dr. Dorling and Mr. Elliott are also Qualified Persons for the purposes of Canadian National Instrument 43-101 and they consent to the inclusion in this report of the Information, in the form and context in which it appears.

Further information respecting Elemental's Sintoukola Project is contained in a technical report entitled "NI 43-101 Technical Report, Sintoukola Potash Project, Republic of Congo" prepared by Neal Rigby of SRK Consulting (U.S.), Inc. and Messrs. Simon Dorling, Jeff Elliott, Andrew Scogings and Peter Davies of CSA Global Pty Ltd. for the Company dated August 1, 2011 with an effective date of June 10, 2011 (the "Technical Report"). The Technical Report can be accessed on the Company's profile on SEDAR.

#### **Forward-Looking Statements:**

This review of operations contains statements that are "forward-looking". Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature, forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this review of operations regarding the company's business or proposed business, which are not historical facts, are "forward looking" statements that involve risks and uncertainties, such as resource estimates and statements that describe the company's future plans, objectives or goals, including words to the effect that the company or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements.

Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

Figure 1: Location of Sintoukola Potash Permit and historic drill hole locations.

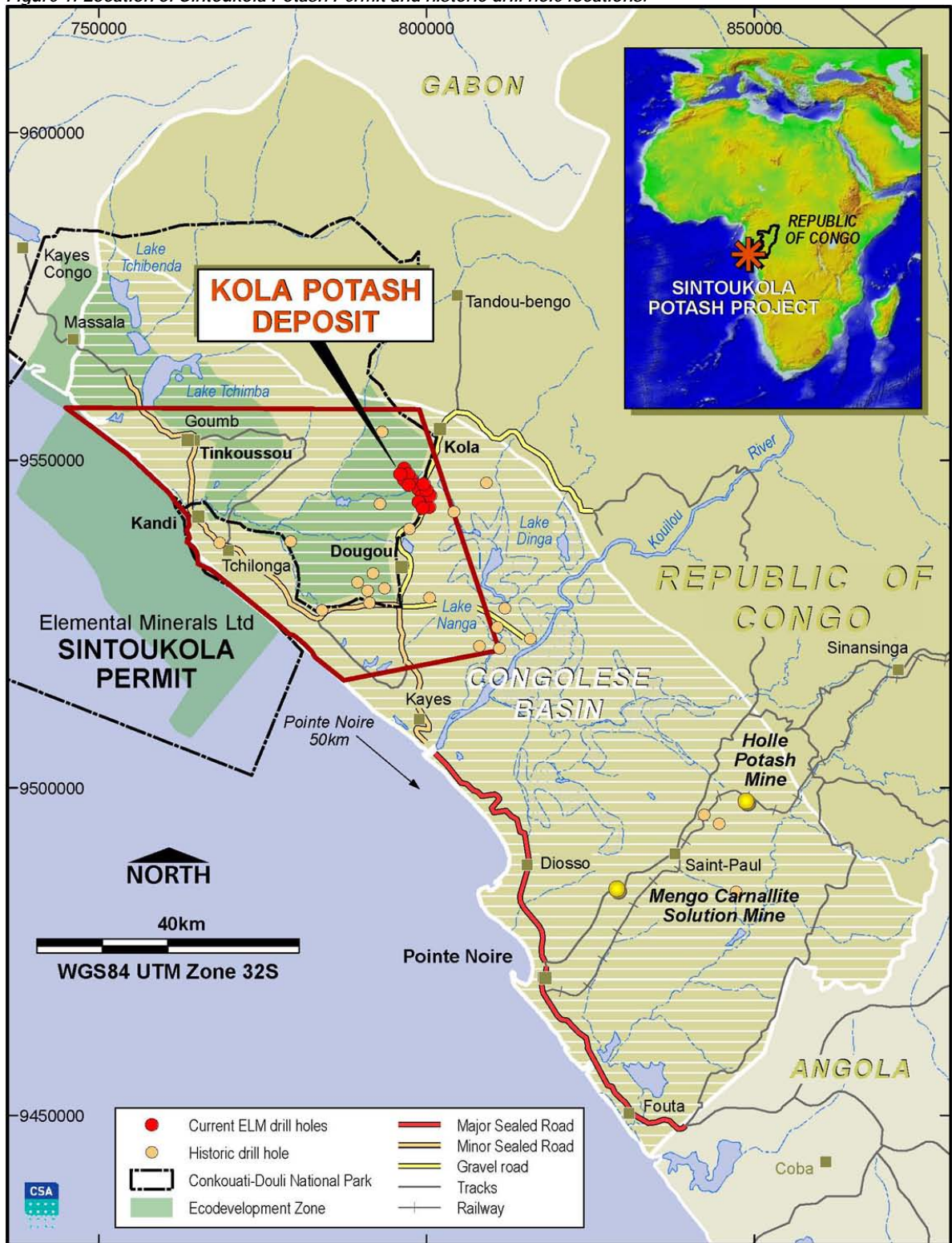
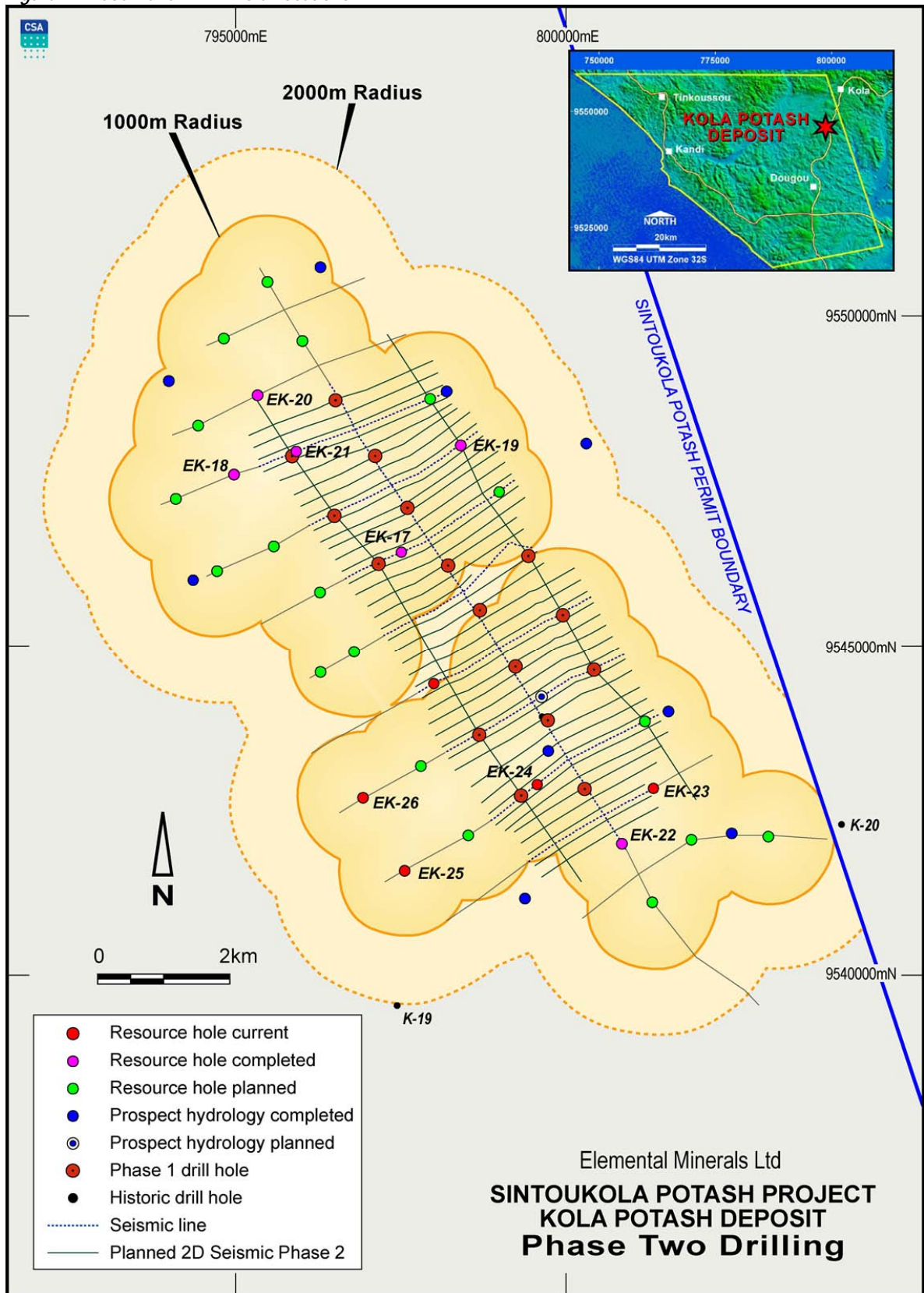


Figure 2: Phase 1 and 2 Drill Hole Locations



# Appendix 5B

## Mining exploration entity quarterly report

Name of entity

ELEMENTAL MINERALS LIMITED

ABN

31 108 066 422

Quarter ended ("current quarter")

31 December 2011

### Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration and evaluation (b) development (c) production (d) administration	- - - (931)	- - - (1,744)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	541	824
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other – GST paid to be recouped	(3)	53
<b>Net Operating Cash Flows</b>	<b>(393)</b>	<b>(867)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchase or renewal of: (a) exploration and evaluation (b) equity investments (c) other fixed assets	(13,329) - -	(20,323) - -
1.9 Proceeds from sale of: (a) prospects (b) equity investments (c) other fixed assets	- - -	- - -
1.10 Loans to other entities	-	-
1.11 Loans from other entities	-	-
1.12 Other	-	-
<b>Net investing cash flows</b>	<b>(13,329)</b>	<b>(20,323)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(13,722)</b>	<b>(21,190)</b>

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(13,722)	(21,190)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	1,208	61,405
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 – share issue expenses	(221)	(4,891)
	<b>Net financing cash flows</b>	987	56,514
	<b>Net increase (decrease) in cash held</b>	(12,735)	35,324
1.20	Cash at beginning of quarter/year to date	53,595	5,589
1.21	Exchange rate adjustments to item 1.20	(293)	(346)
1.22	<b>Cash at end of quarter</b>	40,567	40,567

**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	181
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

All payments to Directors and associates are on normal commercial terms.

**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

N/A.

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

N/A.

### 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	7,255.9
4.2 Development	7,671.5
4.3 Production	-
4.4 Administration	1,128.6
<b>Total</b>	<b>16,056.0</b>

### 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	10,567	12,965
5.2 Deposits at call	30,000	40,630
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>40,567</b>	<b>53,595</b>

### 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	Sintoukola Exploration Permit, Republic of Congo, Decree no 2009-237	0%	93%	93%
	Forrestania Magnetite Project, Western Australia, Exploration Licence no EL80/1022	0%	100%	0%

**Appendix 5B**  
**Mining exploration entity quarterly report**

6.2	Interests in mining tenements acquired or increased	-	-	-
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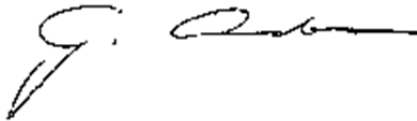
**Issued and quoted securities at end of current quarter**

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

	Total number	Number quoted	Issue price per security (cents)	Amount paid up per security (cents)
7.1	-	-	-	-
	<b>Preference securities</b> <i>(description)</i>			
7.2	-	-	-	-
	Changes during quarter			
7.3	228,787,236	222,361,109	-	Fully Paid
	<b>+Ordinary securities</b>			
7.4	6,326,127 100,000	6,326,127 -	AUD\$0.20 AUD\$0.46	Fully Paid Fully Paid
	Changes during quarter			
7.5	-	-	-	-
	<b>+Convertible debt securities</b> <i>(description)</i>			
7.6	-	-	-	-
	Changes during quarter			
7.7	12,332,117	12,332,117	<i>Exercise price</i> AUD\$0.20	<i>Expiry date</i> 31/01/2012
	2,500,000	-	AUD\$0.20	31/01/2012
	200,000	-	AUD\$0.46	20/12/2012
	4,500,000	-	AUD\$1.07	16/02/2012
	5,250,000	-	AUD\$1.07	19/05/2015
	1,953,620	-	CAD\$1.26	16/08/2013
	<b>Options</b> <i>(description and conversion factor)</i>			
7.8				
	Issued during quarter			
7.9	6,326,127 100,000	6,326,127 -	CAD\$1.26 AUD\$0.46	16/08/2013 20/12/2012
	Exercised during quarter			
7.10	-	-		
	Cancelled/Expired during quarter			
7.11	-	-		
	<b>Debentures</b> <i>(totals only)</i>			
7.12	-	-		
	<b>Unsecured notes</b> <i>(totals only)</i>			

## 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.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here:      Company Secretary

Date: 31 January 2012

Print name:    GRAHAM ANDERSON

## 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.