

QUARTERLY REPORT

31 DECEMBER 2009

COMPANY OVERVIEW

Poseidon is a Nickel exploration and development company focussed on the historic Windarra Nickel Project in the N.E. Goldfields.

The Windarra Nickel Project consists of an existing open pit and underground mine at South Windarra and Mount Windarra respectively as well as 24 kilometres of highly prospective and under-explored host mineralisation.

To date, Poseidon has defined 97,331 tonnes of JORC code compliant nickel sulphide resources at the Windarra Nickel Project. This comprises of 61,764 tonnes of contained nickel at Mt Windarra, adjacent and below the existing underground infrastructure representing a low cost entry to the market; as well as a maiden 25,269 tonne nickel resource at the Cerberus deposit and 10,298 tonnes of contained nickel at South Windarra.

ASX CODE: POS

*see attached resource statement



A summer storm clears to the north-east of Mt Windarra.

COMPANY HIGHLIGHTS

- Windarra exploration to recommence in February 2010
- Poseidon’s sulphide resource base approaches 100,000 tonnes of contained nickel making it one of the largest undeveloped nickel sulphide deposits in Australia
- Cerberus deposit may increase in size with infill drilling
- Geological modelling suggests the South Windarra deposit could be extended
- Continuing to progress potential strategic acquisitions to support the core business

- With a significant resource base that now stands at 97,331 nickel tonnes (Table 1), Poseidon remains committed to the Windarra Nickel Project and believes that through its programme of resource drilling, refurbishment and feasibility work, the company has lifted the projects prospectivity considerably. In order to continue to advance the project, the priorities over the coming periods are to:
 - Undertake additional drilling activities to add to the understanding of the near surface characteristics of the newly discovered Cerberus deposit;
 - Review potential for drilling activity to further extend the newly JORC defined resource at South Windarra;
 - Identify the next exploration opportunity along the belt previously identified through geochemical activity;
 - Update the pre-feasibility completed in 2008 to take account of the potential higher throughput tonnages which could lower processing costs;
 - Develop an off-take partner to assist in funding the considerable exploration potential of the tenements.
- Over the past 12 months, the Company has rigorously examined numerous potential acquisitions with the intent to add significant value to the core Windarra project. Whilst the Company continues to pursue opportunities, it will never compromise on the key driver to deliver increased shareholder value.

Table 1: Windarra Nickel Project Resource Statement

Windarra Nickel Project Sulphides	Cut Off Grade	Resource Category								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Mt Windarra	0.75%	1,017,429	1.24	12,578	2,751,087	1.79	49,185	3,768,516	1.64	61,764
South Windarra	0.90%	820,326	1.15	9,434	82,404	1.05	864	902,730	1.14	10,298
Cerberus	1.50%				1,033,328	2.45	25,269	1,033,328	2.45	25,269
Total Sulphide		1,837,755	1.20	22,012	3,866,819	1.95	75,318	5,704,574	1.71	97,331

EXPLORATION UPDATE

- The Company announced on the 18th January, 2010 the next stage of its exploration programme at the Windarra Nickel Project, with the intent of identifying the next priority drill target to follow up on the new, Cerberus nickel sulphide ore body discovery. In early 2009, Poseidon sought to identify the main nickel bearing lava channels believed to be positioned in the 24km strike zone between Mt Windarra and South Windarra mines. The identification of the likely lava channels was the culmination of a major exercise of compiling electronically almost 20 years of rock sampling and geochemical testing undertaken along the ultramafic belt by Western Mining Corp (WMC) and Burrell Exploration Ltd (Burrell). In addition, the Company undertook its own sampling programme where data was incomplete or missing.
- The historic data identified 6 anomalous zones believed to be volcanic lava channels which may, potentially, be the source of underground nickel mineralisation. Poseidon subsequently drilled the first of these anomalous zones and discovered a new high grade nickel deposit. The Cerberus deposit has a JORC compliant resource of 1.03 million tonnes a 2.45% nickel for 25,269 nickel metal tonnes. The resource is open in 3 directions and further drilling is required to measure the full extent of the ore body.
- The exploration programme at the Windarra Nickel Project is intended to identify the next priority drill target for the remaining 5 untested zones (Figure 2). The initial work proposed will comprise of a detailed geochemical soil sampling programme to include analysis for both nickel and gold, as well as a full range of path finder elements. The detailed soil sampling programme will yield multi-element analysis at higher quality and much lower detection limits than those available to WMC and Burrell in the 1970-1980s.
- Analytical techniques by modern laboratories have improved significantly since the historic sampling was completed and the resultant multi-element and pathfinder element analysis will allow Poseidon's geologists to geochemically "map" the rocks of the Windarra Belt, providing a more detailed, timely and cheaper option than drilling alone. By interpreting the returned data and using elemental ratios which are associated with other nickel rich belts such as Cosmos, Leinster, Forrestania and Kambalda, the geologist can confirm the surface presence of potentially fertile lava channels, thus reducing the cost of drilling by accurately targeting only the prospective nickel areas within the belt.
- WMC and Burrell completed shallow aircore drilling to sample saprolite or bedrock and only analysed for Ni and Cu. The detection limits for these elements were 10ppm for nickel and 1ppm for copper. The planned soil geochemistry programme will collect - 250 micron soil samples from insitu material and will analyse for 36 elements at ACME Laboratories in Canada. The quality and detection limits are far greater today than the previous work, with analysis down to 0.1ppm for nickel and copper, and 0.5ppb for gold allowing for better target definition particularly in the southern portions of the project which are under transported cover.
- When completed this analysis will complement the existing data and greatly assist in prioritising the next nickel drill targets. The geochemical work proposed will be undertaken in partnership with Triton Gold (ASX: TON) with whom Poseidon has a cost sharing arrangement on the tenements. Triton acquired the Gold Rights on the tenements from Poseidon in 2009. Initial work is expected to commence in February 2010 with contracts now being placed with third party suppliers.

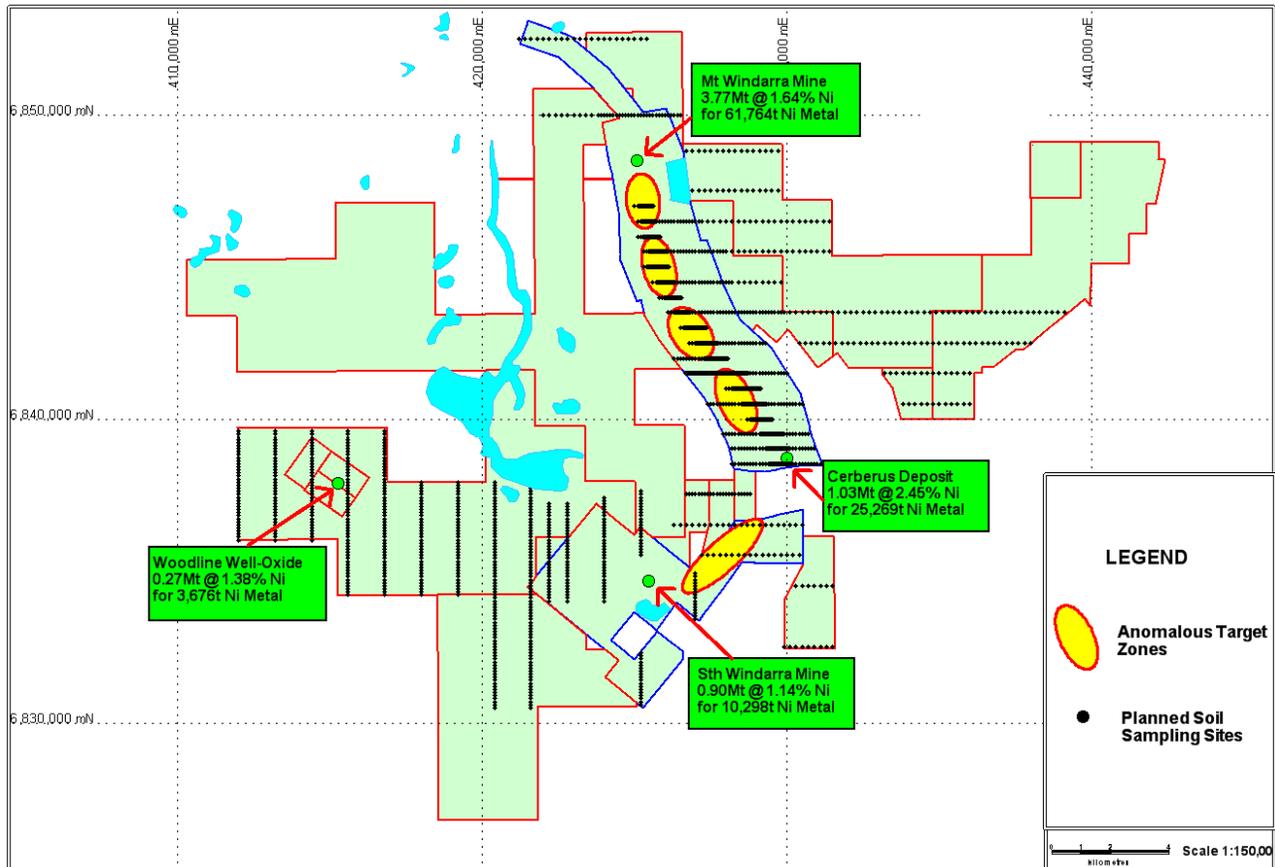


Figure 2: Tenement location plan with anomalous nickel target zones and planned soil geochemistry sample sites. The sampling covers both nickel and gold target zones.

South Windarra

- Poseidon calculated the first JORC compliant resource estimation for the South Windarra Mine area of 902,730t @ 1.14% Ni for 10,298 tonnes of nickel metal for the remaining mineralisation.
- Poseidon's 3D modelling and re-interpretation indicates that the lava channel and mineralisation plunge shallowly to the east and is open along strike and down plunge (Figure 3). The planned soil geochemistry programme will sample over the prospective trend position (southern most target in Figure 2) looking for weak signals through the transported overburden. The target has a number of structural faults running through it which may assist in remobilising geochemical signals from deeper down into the regolith. This work, as well as follow-up RC drilling, has the potential to unlock a previously unrealised shallow resource base extending from and to the east of South Windarra.

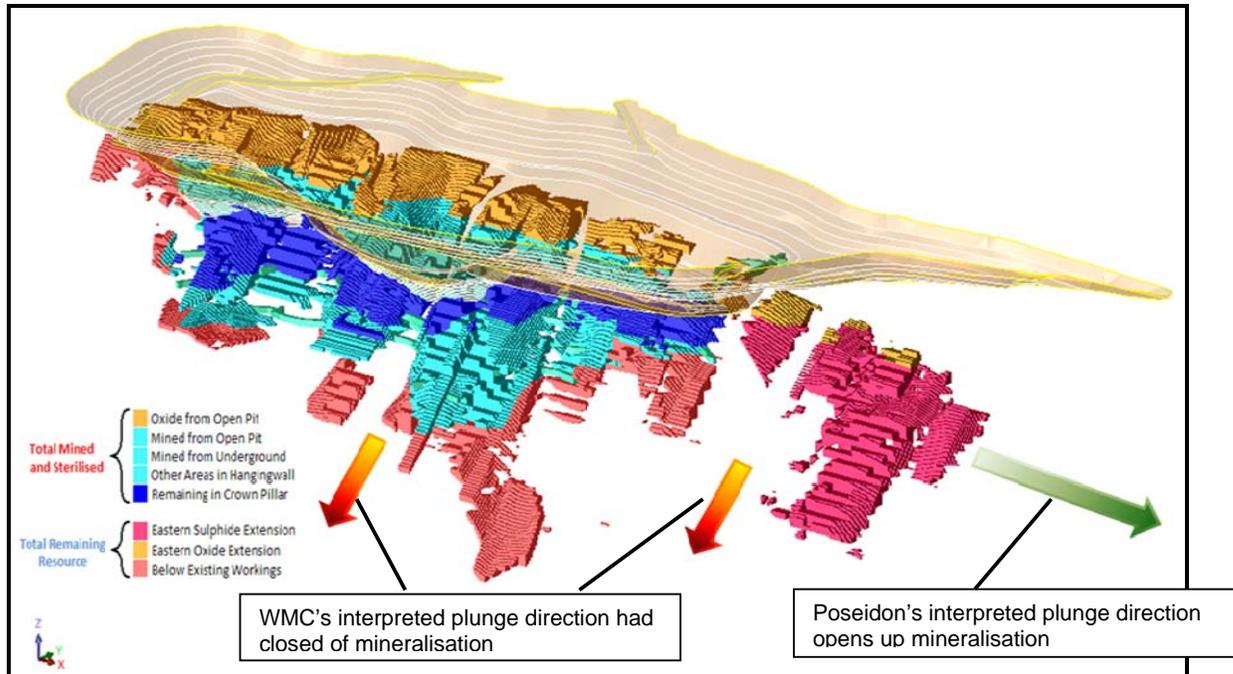


Figure 3: 3D view of the South Windarra Mine (looking NNW) showing the mined and remaining ore resources, and the open mineralisation trend along the interpreted plunge direction of the lava channel.

Note: The information in this report relates to Exploration Results and Mineral Resources based on information compiled by Mr N Hutchison who is a Member of The Australian Institute of Geoscientists. Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of 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 Exploration Results, Mineral Resources and Ore Reserves.' He has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Australian Stock Exchange has not received and does not accept responsibility for the accuracy or adequacy of this release.

OPERATIONS

- Monitoring of the underground mine whilst it remains on care and maintenance has shown no significant deterioration of the rehabilitated decline and due to the slow rise in water levels, pumping has not been required to recommence at this stage. The underground water level continues to remain below the point in the decline at which the refurbishment was stopped.

FINANCIAL

- The Company had cash on hand totalling approximately \$1.0 million as at 31 December 2009.
- The Board of Directors is confident in securing sufficient additional funding to provide working capital and is currently pursuing a number of options. In addition, the Company has been offered underwriting support for a capital raising should this be required.

MARKET INFORMATION

- Figure 4 below shows the underlying correlation between Poseidon's share price and the LME Nickel price over the last 15 months.

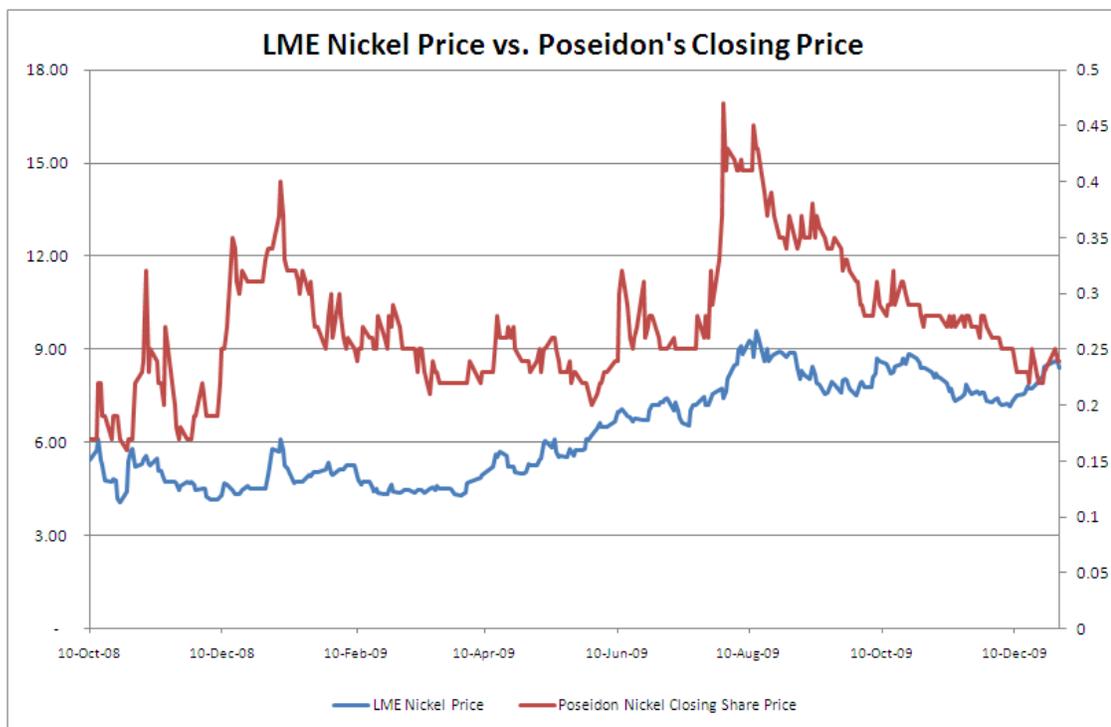


Figure 4

CORPORATE

- 6,157,904 Listed Options expired at 5.00pm (WST) on 5 December 2009. The Options were subject to an exercise price of 81 cents per Option.

David P.A. Singleton
 MANAGING DIRECTOR &
 CHIEF EXECUTIVE OFFICER

29 January 2010

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CORPORATE DIRECTORY

Director / Senior Management

David Singleton	Managing Director & Chief Executive Officer
Andrew Forrest	Non-Executive Chairman
Geoff Brayshaw	Non-Executive Director
Richard Monti	Non-Executive Director
Chris Indermaur	Non-Executive Director
Ross Kestel	Company Secretary

Corporate Enquiries

Mr David Singleton – MD & CEO
P: 61 8 9382 8799
F: 61 8 9382 4760

E: admin@poseidon-nickel.com.au

Shareholder Enquiries

Enquiries concerning shareholdings should be addressed to:

Computershare Investor Securities
GPO Box D182, Perth WA 6840
P: 61 8 9323 2000

Principal Office

Unit 8, Churchill Court
331-335 Hay Street
SUBIACO WA 6008
P: 61 8 9382 8799
F: 61 8 9382 4760

Registered Office

Level 2, Spectrum
100 Railway Road
SUBIACO WA 6008
P: 61 8 9367 8133
F: 61 8 9367 8812

Media Enquiries

Mr Paul Downie
FD Third Person
P: 61 8 9386 1233 M: 0414 947 129
E: paul.downie@fdthirdperson.com.au

Home Exchange

The Company's shares are listed on the Australian Stock Exchange and the home exchange is Perth
ASX code: POS

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

Poseidon Nickel Limited

ABN

60 060 525 206

Quarter ended ("current quarter")

31 December 2009

Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (6 months) \$A'000
Cash flows related to operating activities		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for		
(a) exploration and evaluation	(460)	(1,019)
(b) development	-	-
(c) production	-	-
(d) administration	(784)	(1,309)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	29	73
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other - R & D tax concession received	-	329
- Insurance recovery	100	100
- Sundry income	12	30
Net Operating Cash Flows	(1,103)	(1,796)
Cash flows related to investing activities		
1.8 Payment for purchases of:		
(a) prospects	-	(1,000)
(b) equity investments	-	-
(c) other fixed assets	(14)	(14)
1.9 Proceeds from sale of:		
(a) prospects	-	300
(b) equity investments	-	-
(c) other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other	-	-
Net investing cash flows	(14)	(714)
1.13 Total operating and investing cash flows (carried forward)	(1,117)	(2,510)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(1,117)	(2,510)
	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	46	46
1.17	Repayment of borrowings	(36)	(52)
1.18	Dividends paid	-	-
1.19	Other	-	-
	Net financing cash flows	10	(6)
	Net increase (decrease) in cash held	(1,107)	(2,516)
1.20	Cash at beginning of quarter/year to date	2,143	3,552
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	1,036	1,036

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	120
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

On 24 December 2009, 161,047 ordinary shares were issued at a price of \$0.3743 per share as approved by the Shareholders at the November 2009 Annual General Meeting. The shares were issued to the Non-Executive Directors in lieu of Directors Fees for the September 2009 quarter. In addition, 64,935 ordinary shares were also issued to Mr Indermaur at a price of \$0.2653 for the period of his appointment on 2 April 2009 to 30 June 2009 as approved by the Shareholders at the November 2009 Annual General Meeting. This has not been included in the above cash flow.

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

+ 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	15,619	15,619
3.2 Credit standby arrangements	-	-

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	500
4.2 Development	-
Total	500

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	1,036	1,143
5.2 Deposits at call	-	1,000
5.3 Bank overdraft	-	-
5.4 Other	-	-
Total: cash at end of quarter (item 1.22)	1,036	2,143

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	N/A			
6.2 Interests in mining tenements acquired or increased	N/A			

+ 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	162,680,066 50,000 5,517,200	162,366,935 50,000 5,517,200	\$0.102 \$0.102	\$0.002 \$0.062
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	2,139,982	2,139,982		
7.5 *Convertible debt securities <i>Unsecured</i>	15,906,681 This is an estimate only based on an average exchange rate of 0.943.	-	USD\$0.943	The Notes have a six year term convertible into fully paid ordinary shares at AUD\$1.00.
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 Options			<i>Exercise price</i>	<i>Expiry date</i>
Listed	6,157,403	6,157,403	\$0.92	5 December 2011
Listed	1,000,000	-	\$1.96	2 July 2011
Unlisted	2,500,000	-	\$0.40	31 July 2012
Unlisted	115,000,000	-	\$0.40	19 September 2012
Unlisted	533,000	-	\$1.41	22 October 2012
Unlisted	2,000,000	-	\$0.80	19 December 2012
7.8 Issued during quarter				
7.9 Exercised during quarter				
7.10 Expired during quarter	6,157,904	6,157,904	\$0.81	5 December 2009
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: 29 January 2010

Print name: Geoff Brayshaw

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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