

### **GUNSON RESOURCES LIMITED**

# QUARTERLY REPORT FOR THE PERIOD ENDED 31<sup>st</sup> DECEMBER 2004

# **HIGHLIGHTS**

- Positive bankable feasibility study outcome on the Coburn heavy mineral sand project.
- Gunson to proceed with mine development, subject to environmental approvals and offtake and funding arrangements, with mining operations scheduled to be commissioned in late 2006.
- Over the 18 year life of the project, total revenue is estimated at \$1.3 billion, with an operating cash surplus of \$560 million.
- The project returns, on an ungeared basis, an NPV of \$73 million at an 8% discount rate with an IRR of 15.4%. These returns could be significantly increased if fabrication of the minesite concentrators were carried out in East Asia – a possibility which will be actively pursued.
- Approximately 60% of the revenue would be derived from zircon production, for which there is a very strong market outlook. The zircon price has doubled since 2000 and even higher prices are currently being settled for delivery in 2005.
- Discussions with potential local and overseas offtake customers are in progress with strong interest shown by some overseas customers to assist in financing development of the project.
- At the Mount Gunson copper project, a deep ground penetrating induced polarisation geophysical survey is due to commence in early February to refine targets for drilling in March 2005.



#### 1 **COBURN MINERAL SAND PROJECT** (WESTERN AUSTRALIA)

The Bankable Feasibility Study (BFS) was completed in early December and announced to ASX on 13th December 2004. This study has confirmed that the Coburn Project can sustain a long life and financially attractive mining operation, supplying approximately 5% of the world's present zircon demand when at full scale production.

The Company anticipates commencing construction once mining permits are granted. These approvals are expected early in the fourth quarter of 2005. Gunson has also entered into a conditional agreement to purchase the Coburn pastoral lease, where mining operations are to be focused for the first half of the Project life. This will assist in reducing mine operating costs and allow greater operational flexibility over the life of the Project.

Discussions with potential customers have been in progress for several months and the Company is confident that offtake agreements for the entire mine output will be concluded by mid 2005. Completion of debt and equity financing for the Project should follow the grant of mining approvals. Commissioning of the mining operation is anticipated in late 2006.

# 1.1 Resources

Resource estimates have been based on some 1330 drill holes. 325 of which were completed in mid 2004. The drill traverse spacing in the southern 13 kilometres of the area is 500 metres. with a 6 kilometre section where the spacing is 250 metres. In contrast, the remainder of Amy Zone has been drilled at a 1 kilometre traverse spacing.

Total Indicated and Inferred resources have been estimated to be approximately 710 million tonnes averaging 1.4% heavy mineral. as outlined in Table 1 below:

Table 1. Coburn Heavy Mineral Resources

Resource Category	Million Tonnes	Average Grade Heavy Mineral %	Cut-off Grade Heavy Mineral %
Indicated	250	1.4	0.9
Inferred	460	1.4	0.9
Total	710	1.4	0.9



Inferred resources occur in the widely drilled northern part of the area and were estimated by Company senior geologist, Paul Leandri. Indicated resources are located in the better drilled southern 13 kilometres and were estimated by resource consultants, McDonald Speijers.

There is good potential to increase the resource, particularly to the east where a number of drill traverses finished in ore.

# 1.2 Groundwater Drilling

Pump testing of the deep bore at Amy South in January 2005 has shown that the aquifers tested are capable of supplying adequate brackish water for the mining operation.

All groundwater-related field activities at Coburn have now been completed.

Components of the investigation completed during the quarter include:

- Drilling and construction of one deep test production bore into the Birdrong and Kopke aquifers.
- Drilling and construction of one monitoring bore with piezometers in the three key aquifers beneath the project site.
- Pumping of the test-production bore at rates of up to 100 L/sec over a 48 hour period to characterise the aquifer response to pumping and derive hydraulic parameters for the regional impact assessment.
- Completed the census of all private bores within a 50 to 60 km radius of the Coburn Project.
- Completed the conceptual model for recovering mine water for recycling.

Components currently underway include:

- Preparation of conceptual borefield designs.
- Preparation of monitoring programs for the deep aquifers and mine water interactions with the local environment in the superficial sand.
- Numerical modelling to assess the mine water recovery concepts developed.
- Numerical modelling to assess regional impacts on the private bore owners and groundwater resources in the area.



 Reporting to compile the groundwater resource investigation results for the forthcoming Public Environmental Review and groundwater licensing.

# 1.3 Pit Optimisation/Ore Reserves

Mining consultants Tennent Isokangas have completed pit optimisation studies on the 13 kilometre long southern portion of Amy Zone, where drilling information is sufficient to develop a three dimensional block model. This has resulted in a probable ore reserve of 230 million tonnes averaging 1.1% heavy minerals at a cut-off grade of 0.82% heavy minerals, with a 0.3:1 strip ratio (waste:ore).

For the remainder of Amy Zone, Company senior geologist Paul Leandri has used a two dimensional model to estimate from the inferred resource, a potentially mineable portion of 370 million tonnes averaging 1.1% heavy minerals with a 0.6:1 strip ratio.

# 1.4 Mining Method

The mining method chosen for the BFS comprises a three stage process, as follows:

- Topsoil removed by scrapers and stockpiled for rehabilitation.
- Overburden removed by bucket wheel excavator and conveyed into the void left behind by mining of the ore. This differs from the method discussed in the previous quarterly report but is more cost effective.
- Ore mined by a second bucket wheel excavator is screened in the pit, mixed with water and pumped to the concentrator near the edge of the pit.

The concentrator has been designed for periodic relocation as mining progresses northward from the southern tip of Amy Zone. Tailings from the concentrator are to be pumped back into the pit void for rehabilitation, the water being recovered by a cyclone system for re use in the concentrator.

Costing for the topsoil mining has been based on quotes from Piacentini and Son, who currently supply contract mining services to several major mineral sand producers. It has been assumed that Gunson will own and operate the bucket wheel excavator units for mining of the overburden and ore. Capital and operating costs



have been based on Thyssen Krupp S400 bucket wheel excavators, with a capacity of 2300 tonnes per hour.

### 1.5 Minesite Concentrators

Roche Mining – Mineral Technologies have designed a heavy mineral concentrator with a nameplate capacity of 2000 tonnes per hour. The BFS has assumed that a second concentrator of the same capacity will be commissioned in year 3.

The Roche design includes their new TC 1 high capacity spirals and a final stage wet magnetic separator. This latter unit results in further upgrading of the heavy mineral concentrate into 2 approximately equal tonnage streams: a magnetic concentrate dominated by ilmenite and a non magnetic concentrate dominated by zircon, with lesser rutile and leucoxene. Both concentrates have very little uneconomic (trash) heavy minerals.

# 1.6 Minesite Power/Water Supply

Power for the minesite is to be based on natural gas, with an installed generating capacity of 8 megawatts attached to each concentrator. Natural gas is to be trucked to the minesite for storage.

Water for the concentrators is to be pumped from brackish groundwater aquifers some 200 to 350 metres below the surface. Test drilling completed at Amy South indicates that 2 water bores will be needed to supply each concentrator. Recycling of process water will be a feature of the operation.

# 1.7 Mineral Separation Plant (MSP)

Roche Mining – Mineral Technologies have designed and costed an MSP which has a capacity to treat 26tph of magnetic and 24tph of non-magnetic concentrates. The capital cost of this plant is higher than the Company anticipated and has made the sale of concentrate a more financially attractive alternative. Nevertheless, investigations aimed at reducing the capital cost of an MSP will continue. This will include the location of the Project MSP in China, where the capital and operating costs of such a facility are much lower than in Australia.

## 1.8 Heavy Mineral Production

At a feed grade of 1.1% heavy minerals, each concentrator will produce approximately 105,000 tonnes per year of saleable heavy mineral products, as shown in table 2 below.



Table 2. Es	stimated Annual	Production -	Years	1 to 5	(tonnes)
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Product	Year 1	Year 2	Year 3	Year 4	Year 5
Zircon	30,000	30,000	60,000	60,000	60,000
Ilmenite	60,000	60,000	120,000	120,000	120,000
HiTi	15,000	15,000	30,000	30,000	30,000

### Notes

- (i) production is scheduled to double from year 3 when a second concentrator is commissioned.
- (ii) The figures listed above are higher than those quoted in the previous quarterly report due to the higher mine feed grade.

### 1.9 Prices

Prices assumed for the heavy minerals contained in the Coburn concentrates are shown in table 3 below.

Table 3. Product Price Estimates

Product	Price "	% of	Years 1-2:	Years 3-5:
	\$US/Tonne <sup>#</sup>	Revenue	% World Production	% World Production
Zircon	580	63	2.5	5.0
Ilmenite	80	18	3.5 *	7.0 *
HiTi	350	19	7.5	15.0

<sup>#</sup> Prices are within the ranges provided by TZMI.

The estimated concentrate price is based on the pro rata value of each end product in the concentrate, less the following:

- transport costs from Geraldton
- treatment charges
- losses in the MSP based on figures provided by Roche
- profit margin.

## 1.10 Capital Costs

Estimates of capital costs are higher than those in the Pre Feasibility Study (PFS) Review outlined on page 10 of Gunson's 2003 Annual Report. This is due to a combination of higher site

<sup>\* %</sup> of chloride ilmenite.



infrastructure expenditure and increases in material and labour costs for the minesite concentrator, and the MSP.

For comparison, the capital costs for the previous and present studies are listed in table 4 below.

Table 4. Initial Capital Costs - Coburn Project (\$ million)

	PFS Review 2003	BFS 2004
Site Infrastructure	1.4	14.0
Concentrator	25.7	45.7
Pre strip	4.6	0.7
MSP	30.8	*
Bucket Wheel Excavators (2)	-	11.2
Total Initial Capital	62.5	71.6

<sup>\* \$</sup>A86.3 million cost of MSP not included in the financial evaluation quoted below.

The 2003 PFS Review envisaged three concentrators at full production, with a total capital cost of \$114M. In contrast the current BFS assumes that full production will be attained with two concentrators and that an MSP will not be built, making the total capital cost \$128.5 M.

The 2004 capital costs are believed to be conservative and the Company expects to reduce them before final contracts are awarded. Early indications suggest that fabrication of the minesite concentrators in East Asia would result in substantial reductions in the capital cost of these items.

## 1.11 Financial Evaluation

Financial modelling based on a staged dry mining development at the south end of Amy Zone has shown that the Project is commercially attractive. The modelling assumed that mining begins with one concentrator and is ramped up to full production with a second concentrator of the same capacity in year 3. Modelling also assumed the throughput rate of the concentrators is 2200 tph. This is within the performance capability of the concentrator and results in an 18 year mine life based on the ore reserves and potentially mineable resources discussed in section 1.3.



Several scenarios have been run on the financial model developed for the Project by Ernst and Young. A comparison of the current study with the most recent set of previous financial figures (see 2003 Annual Report, page 10), is set out in table 5 below.

Table 5. Revenue, Cost and Return Estimates

	PFS Review 2003 *	BFS 2004 #
Total Revenue	\$1,405 M	\$1,336 M
Total Operating Costs	\$1,007 M	\$776 M
Operating Cash Surplus	\$399 M	\$560 M
Capital Cost	\$114 M	\$128.5 M
IRR after tax	23%	15.4 %
NPV (8%)	\$64 M	\$73 M
Exchange rate	\$0.65	\$0.70
	* 60% gearing	# no gearing

Note: At the current \$US/\$A exchange rate of \$0.77 and a 2005 zircon price of \$US650 per tonne, the after tax IRR and NPV for the BFS 2004 are slightly lower.

## 1.12 Work Program - 2005

Following the positive BFS results, the Company has decided to proceed with the following work program in 2005:

- Continue discussions with potential offtake and equity partners, with a view to concluding offtake and equity funding agreements.
- Tender and proceed with detailed engineering design and costing of the minesite concentrator and ancillary infrastructure. This will include an investigation into the fabrication of the concentrators in East Asia, which could result in substantially lower capital costs.
- A public environmental review of the proposed Amy Zone mining operation with a view to obtaining development approvals in the December quarter of 2005. The Western Australian Environmental Protection Authority approved the Company's scoping document for the public review on 18<sup>th</sup> January 2005.
- Infill drilling on parts of the Amy South Zone to upgrade some probable ore reserves to proven, along with extension drilling to the east.



- Completion of the purchase of the Coburn pastoral lease.
- Completion of debt and equity financing arrangements once offtake agreements have been concluded.

#### 2 **MOUNT GUNSON COPPER PROJECT** (SOUTH AUSTRALIA)

A deep ground penetrating induced polarisation geophysical survey over the Chianti Prospect targeting Olympic Dam style mineralisation was delayed but will now commence in early February. Drilling is planned for this area based on results of the geophysical survey.

The drilling at Chianti will be followed by infill drilling at Moseley Dam Prospect. Both drilling programs will be 50% funded by the South Australian Government as part of its Exploration Acceleration initiative.

#### 3 SHELL LAKES NICKEL & DIAMOND PROJECT (WESTERN AUSTRALIA)

Discussions with prospective joint venture partners continued during the quarter.

Five exploration licences on the southern end of the Project area were relinquished in mid December, reducing the Project tenements to 6 exploration licences and 1 exploration licence application.

# **FOWLER'S BAY NICKEL PROJECT** (SOUTH AUSTRALIA)

A review of previous exploration in the area has concluded that basement depths can be expected in the range of 20 to 80 metres. This has two important implications:

- that previous soil geochemical exploration was probably (a) ineffective due to the widespread sand cover and
- that the project has some potential for heavy mineral sand (b) deposits in parallel or offshore positions to the Iluka Resources' discoveries some 60 kilometres to the north west.



### 5 FINANCIAL

At 31<sup>st</sup> December, the Company had \$1.2 million in cash and short term deposits. This does not include a \$0.3 million R&D refund from the Australian Tax Office, which is due by early March 2005.

Forecast exploration and evaluation expenditure for the March quarter is \$0.5 million.

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D N HARLEY Managing Director 31<sup>st</sup> January 2005

# Investor enquiries:

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## **ATTRIBUTION**

The information contained in this release is based on, and accurately reflects, information compiled by Mr D N Harley and Mr A Luscombe, both corporate members of the Australasian Institute of Mining and Metallurgy. Both have over five years experience in the field of activity being reported on.

Information relating to inferred mineral resources in this release is based on data compiled by Mr Paul Leandri of Gunson Resources Limited, who has over 15 years relevant experience in the field of activity being reported on. Mr Leandri is a member of the Australian Institute of Geoscientists and a corporate member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2004 release of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Leandri consents to the inclusion of the information in the report in the form and context in which it appears.

The information in this release that relates to indicated mineral resources is based on data compiled by Mr John McDonald of McDonald Speijers, who has over 30 years of relevant experience in the field of activity being reported on. Mr McDonald is a corporate member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is



relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2004 release of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr McDonald consents to the inclusion of the information in the report in the form and context in which it appears.

Information relating to ore reserves in this release is based on data compiled by Mr Hayden Tennent, Director of Tennent, Isokangas Pty Ltd Mining Consultants, in close association with Mr Phillip McMurtrie, an independent mining consultant. Mr Tennent has received information and data from Gunson Resources and their agents, and has accepted it in good faith. Other than the mine planning and the estimation of tonnage and grades, other competent parties have carried out the preparation of the information contributing to the reserve. This information is to a standard that allows the southern portion of the Amy Zone reserve to be classified a Probable Reserve under the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". A site visit was conducted by Mr McMurtrie.

Both Mr McMurtrie and Mr Tennent have over 20 years relevant experience between them in the field of activity being reported. Both are corporate members of the Australasian Institute of Mining and Metallurgy. Mr Tennent is a member of the Mineral Industry Consultants Association. He has sufficient experience which is 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 release of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Both Mr McMurtrie and Mr Tennent are independent of Gunson Resources Ltd and have no financial interest in the Project. Mr Tennent consents to the inclusion of the information in the report in the form and context in which it appears.

*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

Gunson Resources Ltd	
ABN	Quarter ended ("current quarter")
32 090 603 642	31 December 2004

# Consolidated statement of cash flows

Cash f	lows related to operating a	ctivities	Current quarter \$A'000	Year to date (6 months) \$A'000
1.1	Receipts from product sale	es and related debtors	-	-
1.2	(b)	exploration and evaluation development	(1,183)	(2,114)
		production administration	(185)	(316)
1.3	Dividends received		-	-
1.4 1.5	Interest and other items of Interest and other costs of		24	79
1.6	Income taxes paid	mano para	-	-
1.7	Other (provide details if n	naterial)	_	96
	Net Operating Cash Flow	vs	(1,344)	(2,255)
	Cash flows related to inv	esting activities		
1.8	Payment for purchases of:	(b) equity investments		-
1.0	D 1.0 1.0	(c) other fixed assets	(2)	(3)
1.9	Proceeds from sale of:	(a)prospects (b)equity investments ©other fixed assets	- - -	- - -
1.10	Loans to other entities		-	-
1.11	Loans repaid by other enti		-	-
1.12	Other (provide details if n	naterial)	(22)	(22)
	Net investing cash flows		(24)	(25)
1.13	Total operating and in forward)	vesting cash flows (carried	(1,368)	(2,280)

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<sup>+</sup> See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(1,368)	(2,280)
	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	(1,368)	(2,280)
1.20	Cash at beginning of quarter/year to date	2,600	3,512
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	1,232	1,232

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	20
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

Payment of remuneration to the Managing Director	19	
Payment of directors remuneration	1	

# 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			

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<sup>+</sup> 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

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

# **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	232	600
5.2	Deposits at call	1,000	2,000
5.3	Bank overdraft	-	-
5.4	Other (provide details)	1	-
	Total: cash at end of quarter (item 1.22)	1,232	2,600

# Changes in interests in mining tenements

6.1	Interests in mining tenements relinquished,
	reduced or lapsed

6.2

Interests in mining tenements acquired or

100%	100%	Nil
100%	100%	Nil
]	00% 00% 100%	100%     100%       100%     100%       100%     100%       100%     100%

<sup>+</sup> See chapter 19 for defined terms.

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 (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference			/\ /	` /
	+securities	_			
	(description)				
7.2	Changes during				
1.2	quarter				
	(a) Increases				
	through issues				
	(b) Decreases				
	through returns of				
	capital, buy-				
	backs,				
	redemptions				
7.3	+Ordinary	64,300,000	64,300,000		
	securities	, ,	.,,		
	500 111105				
7.4	Changes during				
, <b>.</b>	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			Exercise Price	Expiry Date
	(description and	100,000	-	20 cents	16/12/07
	conversion	400,000	-	20 cents	07/03/06
	factor)	1,000,000	-	20 cents	16/09/08
		Class A		20	12/05/05
		3,125,000	-	20 cents	12/05/05
		Class B 3,275,000		25 cents	12/05/05
		3,473,000	-	23 CEIRS	14/03/03
7.8	Iconad durina			+	
1.0	Issued during quarter				
7.9	Exercised during	-	_		
1.7	quarter				
7 10	_	-	_		
7.10	Expired during quarter				
7.11	•	_	_		
7.11	<b>Debentures</b> (totals only)				
	(was only)		<u> </u>	_	

<sup>+</sup> See chapter 19 for defined terms.

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7.12	Unsecured notes (totals only)	_	_

# **Compliance statement**

- 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).
- This statement does give a true and fair view of the matters disclosed.

Sign here:		
	, Wargat	2151 7 2007
	(Managing Director)	Date: 31 <sup>st</sup> January 2005
Print name:	David Harley	

# **Notes**

- 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.
- 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.
- The definitions in, and provisions of, AASB 1022: Accounting for Extractive Industries and AASB 1026: Statement of Cash Flows apply to this report.
- 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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<sup>+</sup> See chapter 19 for defined terms.