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ASX / Media Release

29 May 2008

**APPENDIX 5B – THIRD QUARTER ACTIVITIES AND CASH FLOW REPORT**

## **DEEP DRILLHOLE SITE SELECTED FOR FROME PROJECT**

### **HIGHLIGHTS**

- **Two further shallow drillholes (250 metres deep) completed – both confirmed the high temperature gradient at the Frome Project.**
- **Regional temperature gradient model generated from measured temperatures in drillholes.**
- **Best site identified for first deep drillhole (1800 metres).**

### **REVIEW OF OPERATIONS**

#### **FROME PROJECT**

During the quarter Geothermal Resources Limited (Geothermal Resources – ASX : GHT) completed drilling and temperature logging of two additional shallow holes on its Frome Project, namely Frome 10 and Frome 11. These holes were drilled to 250 metres depth with the objective of better defining the area of highest geothermal gradient within the central region overlying the buried “Vulcan” granite, indicated by earlier drillholes Frome 3 and Frome 9 (see map).

**Frome 10 and 11, although 3.6 km apart, recorded almost identical temperature gradients of approximately 42°C / km.** Importantly, the downhole temperature data is very consistent, showing an almost linear relationship between temperature and depth in both holes.

This new temperature data was combined with all other data from above the Vulcan granite, enabling accurate regional temperature modelling. This indicated that the area of highest temperature gradient (shown in red on the map,) and therefore **the optimum location for a deeper drillhole, lies west of Frome 3.** Based on earlier temperature measurements in Frome 3, a temperature gradient of greater than 48°C / km is predicted : extrapolation suggests a temperature of 200°C at around 4 km depth.

A site has been selected for drilling of a diamond core hole to a target depth of 1800 metres located 3 km west of Frome 3. The objective of this hole will be to confirm continuity of the high temperature gradient at depth. It will be a pre-cursor to a subsequent drillhole exceeding 3000 metres depth to be drilled into the granite geothermal reservoir. Diamond drilling has been chosen over conventional rotary drilling with an oil rig, owing to the current availability of diamond drill rigs, and the considerably lower cost of mobilization and drilling. While it will not be possible to

extend the hole for production purposes because of its small diameter, the drill core will provide additional valuable information on the insulating properties of the cover rocks. Subject to obtaining a drilling permit from PIRSA and procuring a suitable diamond drilling rig, it is proposed to commence this drillhole early in the second half of 2008.

All drilling work so far on the Frome Project has been supported by a \$2.4 million REDI (Renewable Energy Development Initiative) grant from the Federal Government, which is matching the Company's expenditure.

## **NEW GEOTHERMAL EXPLORATION LICENCE**

An application was made for a new geothermal exploration licence (GEL) that lies approximately 115 km northeast of Frome 3 in a comparable geological setting to the Frome Project GEL's. The GEL application covers a portion of the Yalkalpo sub-basin, where gravity data suggests a thick sedimentary sequence is underlain by granite. Located within the application area is abandoned petroleum well, **Yalkalpo 2, which has a geothermal gradient amongst the highest in Australia with a value of 52 °C / km.** This is based on a bottom of hole temperature of 58.3 °C at 799 metres depth measured at the time of drilling Yalkalpo 2 in 1976. The priority task upon grant of the GEL will be to log the downhole temperature if the drillhole is still open at depth.

During the quarter it was decided to relinquish two GEL's because of their perceived limited prospectivity. GEL 222 was relinquished because the near average crustal geothermal gradient calculated from downhole temperature measurements suggested that a hot granite body did not lie at depth beneath the faulted trough as interpreted from seismic data. Similarly, study of geophysical data for GEL 279 indicated that it too was unlikely to be underlain by any sizeable granite geothermal reservoirs at reasonable drilling depths.

## **CROWER PROJECT**

Geothermal Resources continues to evaluate the wealth of geological information available for the Crower project area, including seismic data recently acquired from PIRSA. This information will assist in selection of the best locations for several planned 500 metre deep holes that will be logged to obtain reliable downhole temperature data for regional thermal modelling purposes.

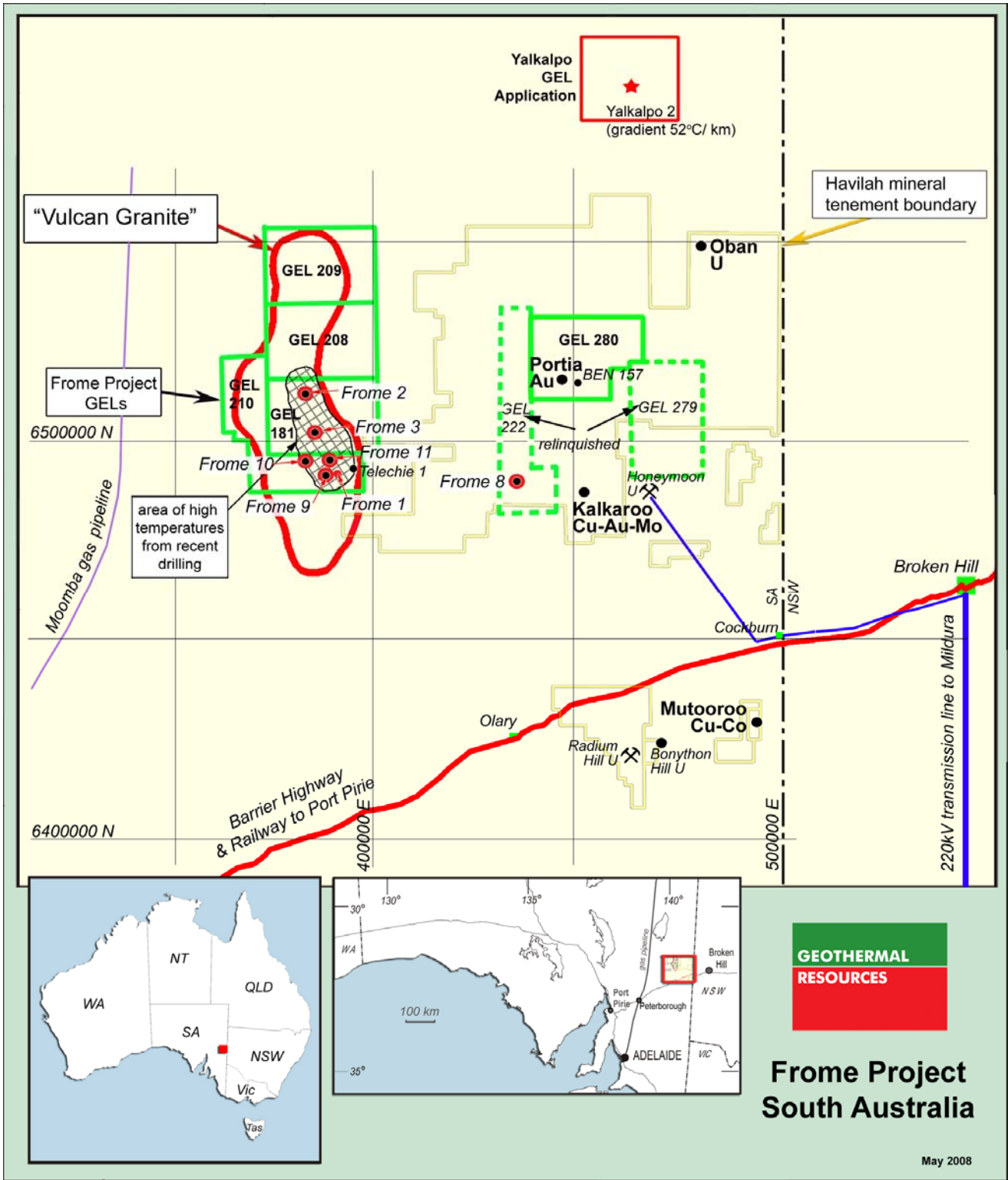
## **FINANCE**

As at 30 April 2008 the Company had available funds of \$2.05 million of which the majority is held in a term deposit. During the quarter \$327,000 reimbursement of previous drilling expenditure under the REDI grant was received. Exploration expenditure in the next quarter is expected to be considerably higher than the current quarter due to commencement of a 1800 metre diamond drillhole on the Frome Project.

Dr K R Johnson  
CHAIRMAN

The information in this report has been prepared by Dr Bob Johnson who is a member of the Australasian Institute of Mining and Metallurgy and Dr Chris Giles who is a member of The Australian Institute of Geoscientists. Drs Johnson and Giles are employed by the Company on consulting contracts. They have sufficient experience which is relevant to the style of mineralization and type of deposit under consideration to qualify as Competent Persons as defined in the JORC Code 2004. Drs Johnson and Giles consent to the release of the information compiled in this report in the form and context in which it appears

Enquiries should be directed to Dr Bob Johnson, Chairman, on (08) 8338 9292



**GEOHERMAL  
RESOURCES**

**Frome Project  
South Australia**

May 2008

## 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

GEOTHERMAL RESOURCES LIMITED

ACN

115 281 144

Quarter ended ("current quarter")

30/04/2008

Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (9 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	-228	-684
(b) development		
(c) production		
(d) administration	-49	-164
1.4 Dividends received	33	95
1.5 Interest and other items of a similar nature received		
1.6 Interest and other costs of finance paid		
1.7 Income taxes paid		
1.7 Other		
	-244	-753
<b>Net Operating Cash Flows</b>		
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
(a)prospects		
(b)equity investments		
(c) other fixed assets	-	-4
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 (REDI grant reimbursement)	327	566
	327	562
<b>Net investing cash flows</b>		
1.13 Total operating and investing cash flows (brought forward)	83	-191

<b>Cash flows related to financing activities</b>			
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	-5	-16
1.18	Dividends paid		
1.19	Other (provide details if material)		
<b>Net financing cash flows</b>		-5	-16
<b>Net increase (decrease) in cash held</b>		78	-207
1.20	Cash at beginning of quarter/year to date	1971	2256
1.21	Exchange rate adjustments to item 1.20		
1.22	<b>Cash at end of quarter</b>	2049	2049

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	216
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

The payments relate to management and consulting fees payable to entities associated with the directors pursuant to contracts entered into with the Company, and also reimbursement of expenses incurred by directors on behalf of the Company. In addition during this quarter Talager Drilling Pty Ltd, a company associated with one of the directors carried out drilling services. Drilling charges are at standard commercial rates as determined by public quotes for comparable equipment, and approved by non-associated directors.

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

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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

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### 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	350
4.2 Development	
<b>Total</b>	350

### 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	73	139
5.2 Deposits at call	1976	1832
5.3 Bank overdraft		
5.4 Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)	2049	1971

### 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			

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 <b>Preference + securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	33,000,000	33,000,000		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5 <b>+Convertible debt securities</b> <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b> <i>(description and conversion factor)</i>	1,600,000 200,000 25,000	Directors Employee Employee	<i>Exercise price</i> 60 cents 31 cents 36 cents	<i>Expiry date</i> 21/03/2011 19/10/2011 12/02/2012

7.8	Issued during quarter				
7.9	Exercised during quarter			<i>Exercise price</i>	<i>Expiry date</i>
7.10	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 (see note 4).
- 2 This statement does ~~does not~~\* (*delete one*) give a true and fair view of the matters disclosed.

Sign here: .....  
(Director/Company secretary)

Date: 29 May 2008

Print name: Dr KR Johnson...Chairman / Director.....

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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