

## QUARTERLY REPORT

For the period ended 31 December 2019

+ Carpentaria Resources is answering the world's call for high grade iron ore.

+ The Company has a majority interest in the Hawsons Iron Project, source of Hawsons Supergrade® product

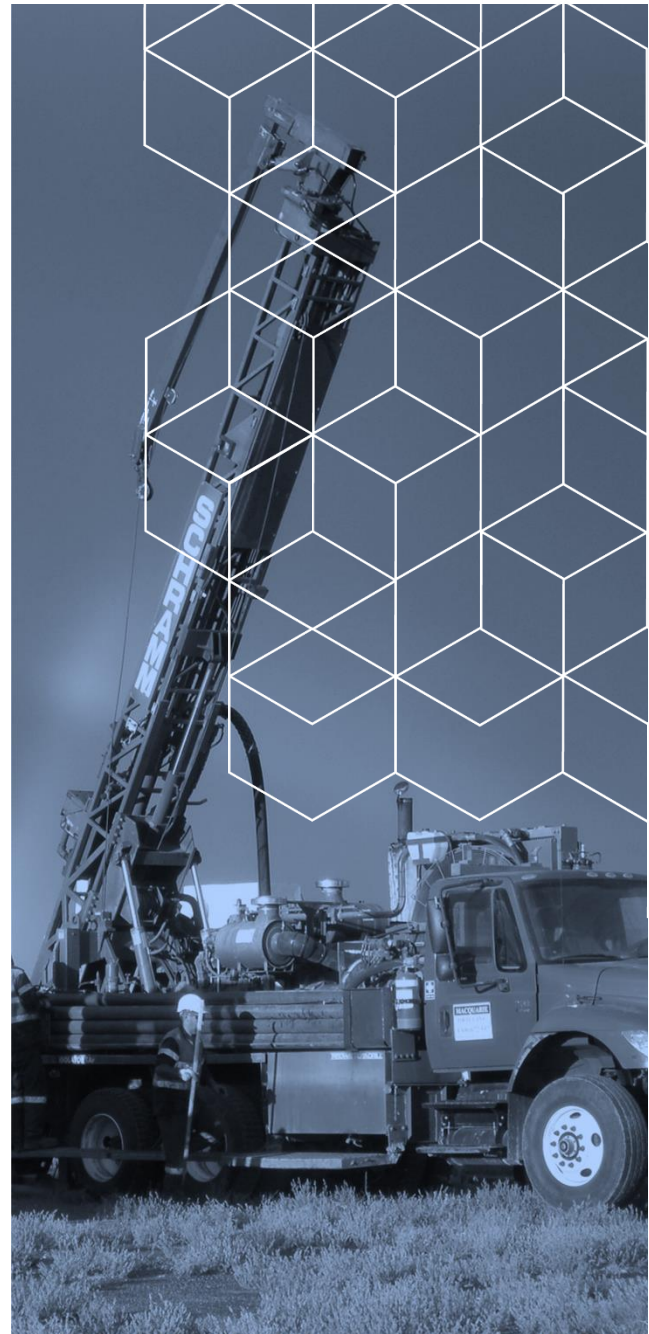


## HIGHLIGHTS

### Hawsons Iron Project

- + Carpentaria continues to take necessary steps to move the Company forward.
- + Carpentaria improved its direct reduction (DR) grade product offering to meet buyer demands for tier one DR quality product
- + Value-in-use modelling shows Hawsons pellet feed is worth US\$16-23 per tonne more through the steelmaking value chain than a standard DR product
- + The new information has been well received by DR pelletisers and steelmakers in the MENA region
- + Initiatives to boost Company capability and improve the commercial offering. During the quarter, financing experience was added when Mr John Anderson joined as Chairman of the Board.
- + The Company is progressing discussions with tier one and other offtakers and potential cornerstone investors for offtake-related and other bankable feasibility study (BFS) funding.
- + Updates were provided to Asian-based offtake partners and those intending to negotiate a role at BFS completion
- + Hawsons is well placed to attract BFS support because of:
  - + High forecast returns – Outstanding for the commodity and project type. According to Wood Mackenzie, the leading project of its type (chart 1), (refer to the PFS released 28 July 2017, showing an equity rate of return of 30%)\*.
  - + Unmatched product demand - The unique 70%Fe pellet feed product meets the long-term global demand profile for high quality inputs and decarbonisation of steel making.
  - + Low risk profile – Forecast to be first quartile of the global cost curve (as per the PFS, Hawsons is cash-flow positive at benchmark 62%Fe price <US\$30/tonne).

\* The Company confirms that all assumptions and technical parameters underpinning the Resource and Reserve estimates and all material assumptions underpinning the production target or the forecast financial information derived therefrom continue to apply and have not materially changed since first reported on 28 July 2017.



## HAWSONS IRON PROJECT

70%

Iron percentage of Hawsons Supergrade® product.

14.0

Offtake demand for Hawsons Supergrade® product (Mtpa).

201

Total production of Hawsons Iron Project (million tonnes).  
As per the PFS release on 28 July 2017.

The Company confirms that all assumptions and technical parameters underpinning the Resource and Reserve estimates and all material assumptions underpinning the production target or the forecast financial information derived therefrom continue to apply and have not materially changed since first reported on 28 July 2017.

Carpentaria Resources Limited (ASX:CAP) announced today its quarterly activities and cashflow report for the period ending 31 December 2019.

The Company is focussed on developing its flagship Hawsons Iron Project near Broken Hill, NSW and continues to take necessary steps to move the project forward.

Following last quarter's visits to strengthen relationships in Asia and the Middle East, the Company stepped up promotion in the Middle East and north Africa (MENA), improving the product offering and completing value-in-use marketing studies to position the Company to benefit as the region builds its non-oil economy.

Opportunities for independent top tier DR grade supply are extremely limited and the new specification and potential benefits were well received by MENA DRI-based steelmakers.

Managing Director Quentin Hill said, "The confluence of DR grade iron ore supply disruptions and high prices with a demand side strategy to grow non-oil industries means steelmakers in MENA are increasingly attracted to non-traditional iron ore supply.

"There are several expansion plans in the region, and this new analysis shows Hawsons is ideally suited to meet MENA steelmaking needs of long-term highest-quality supply at a cost and price structure that supports DRI-based steel-making through the cycle."

### Improved product offering

Interest from the Middle East prompted a review of test work to determine what higher quality products can be produced from Hawsons. Data shows increasing elutriation velocities and the regrind capacity at the final stage of the beneficiation circuit will produce the better product specification (Table 1) without materially affecting the cost structure.

The new specification is an improvement of 0.5% in silica plus alumina gangue, lifting it into the top tier of DR grade products and increasing its value to steelmakers.

Depending upon binder selection Farnborough Engineering Consultants (FEC), highly experienced in the MENA region steel industry, calculated a 67.8-68.4% Fe (1.8-2.1% silica + alumina) DR pellet specification could be produced from the new feed specification (Table 2). This low gangue pellet competes well with tier one DR grade pellets typically less than or equal to 2% silica plus alumina.

Table 1. Potential Hawsons Supergrade® DR grade chemistry

Fe %	FeO %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	S %	GOI %
70.50	29.30	1.51	0.23	0.003	<0.002	3.02

(See ASX Announcement 20 April 2015 – Hawsons sets sights on high value processed iron products after successful test work results)

Table 2. Hawsons potential DRI pellet chemistry (FEC)

Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	S %	SiO <sub>2</sub> +Al <sub>2</sub> O <sub>3</sub> %
67.8	1.75	0.34	<0.01	<0.001	2.09
68.4	1.58	0.26	<0.01	<0.001	1.84

## Value-in-use

Value-in-use (VIU) estimates by FEC and LFJ Consulting indicate Hawsons pellet feed is worth approximately US\$16-23 per tonne extra in the steelmaking value chain (pelletising, direct reduction iron (DRI) and electric arc furnace steel (EAF)) when compared to a hematite derived 67%Fe DR grade pellet (Table 3).

Table 3. VIU elements itemised

Element	Results
Pellet Production	<sup>1</sup> Increases by 4%
Pelletising Operating Costs	<sup>2</sup> Decreases by ~US\$2.10/t pellet
Electric Arc Furnace Liquid Steel Production	<sup>3</sup> Increases by 3-5 %
Electric Arc Furnace Operating Costs	<sup>4</sup> Decreases by >US\$2.50/tls (~US\$1.70/t pellet)

<sup>1</sup>Compared to hematite direct reduction pellet feed, value estimated at ~US\$2.20 - 3.40 per tonne pellets, calculated using MIODEX Daily Dec 13, 2019 iron ore pricing; <sup>2</sup>Outotec 2013 World DRI and Plant Congress, Abu Dhabi; <sup>3</sup> Using Hawsons 68.4%Fe / 67.8%Fe Pellet ~ \$US15 – 23 per tonne of liquid steel (tls) (US\$10-16/t pellet) extra value in use to the steel make as calculated by FEC; <sup>4</sup>As calculated by FEC. (Note: Input costs and steel pricing represents typical values for Middle East in 2019. Details presented in Appendix 2)

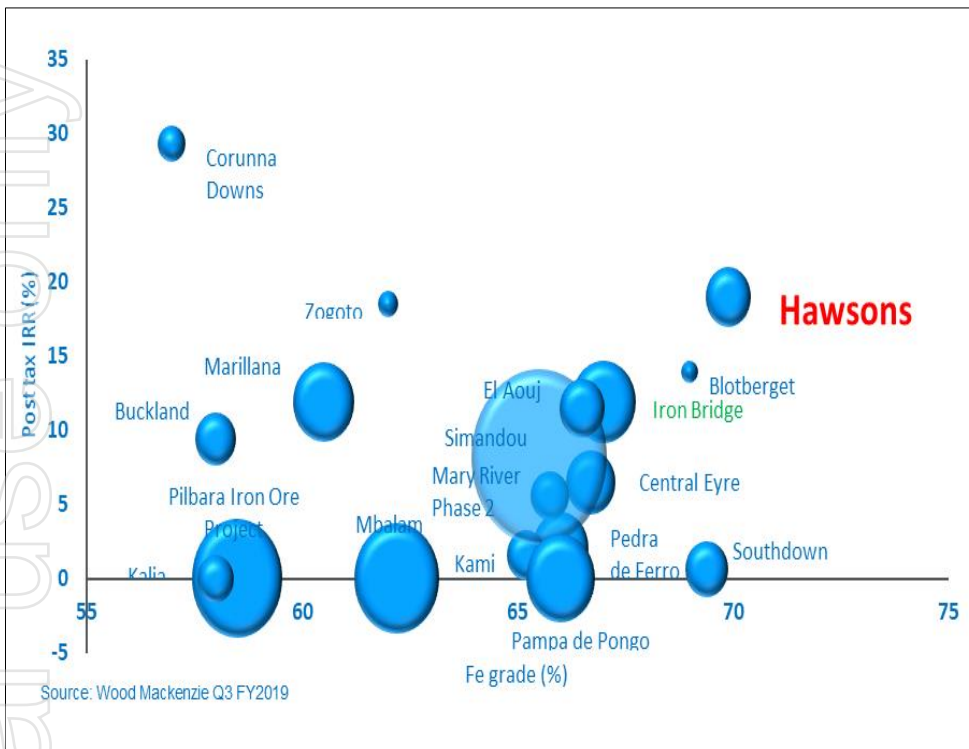
VIU studies are an important technical marketing tool that demonstrate a product's potential value to a steelmaker and assist when establishing new markets and negotiating pricing.

Carpentaria has non-binding letters of intent in MENA with Bahrain Steel, Emirates Steel and Kuwait Steel.

## Corporate

The Company's Annual General Meeting was held on 21 November 2019 in Brisbane, and all resolutions were passed on a show of hands. Dr Neil Williams resigned as Non-executive Chairman and as a director effective at the end of the AGM, and Mr John Anderson was appointed as Non-executive Chairman.

Federal Resources Minister Matt Canavan wrote to Carpentaria expressing the federal government's wish to see the benefits the project will bring to local communities and Australia realised. The Hawsons project has major project status from the federal government that provides a coordinated approval process. The letter will be well received by our international counterparties.



\*All projects except Hawsons at BFS stage .  
Hawsons at PFS stage  
\*Assumes that Hawsons is in production and the outcomes are as set out in the prefeasibility study announced on 28 July 2017. The Company confirms that all assumptions and technical parameters underpinning the Resource and Reserve estimates and all material assumptions underpinning the production target or the forecast financial information derived therefrom continue to apply and have not materially changed since first reported on 28 July 2017.  
\*Bubble size represents annual production capacity  
\*Excludes replacement or expansion projects owned by established miners RIO, BHP, CSN, FMG  
\*Based on Wood Mackenzie long term price forecasts  
Source: Wood Mackenzie (developed from company 's stock exchange compliant releases, modified uniformly by Wood Mackenzie by internal long term price and cost forecasts, Wood Mackenzie is not aware of any material omissions in the data)

Chart 1 – IRR vs product grades for unfinanced projects at PFS stage or later

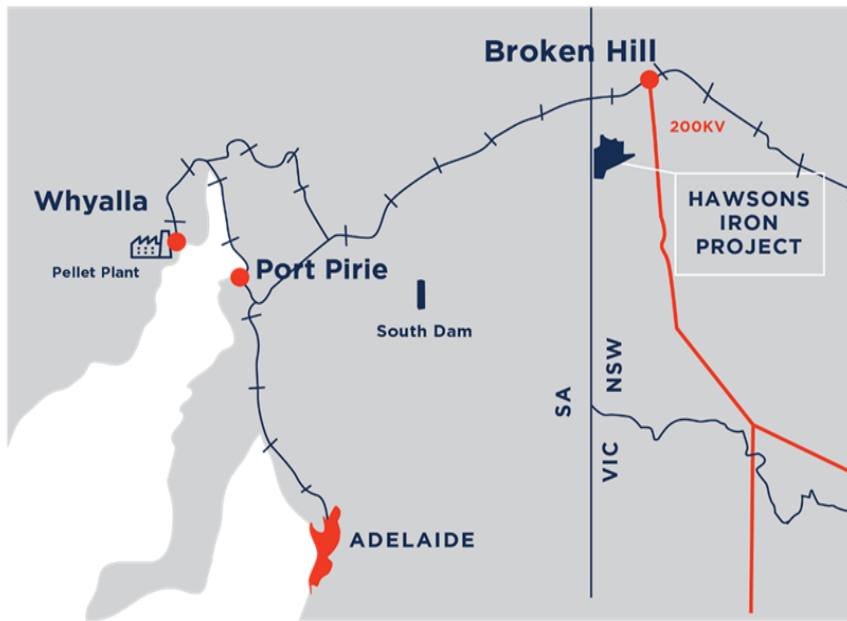
### About Hawsons Iron Project

The Hawsons Iron Project joint venture (CAP 69.8%, Pure Metals P/L 30.2%) is currently undertaking development studies based on the low cost, long term supply of a high grade, ultra-low impurity iron concentrate to a growing premium iron market, including the direct reduction (DR) market.

The project has a clear technical and permitting pathway. It is located 60km south-west of Broken Hill, an ideal position for mining operations with existing power, rail and port infrastructure available for a 10Mtpa start-up operation. A mining lease application has been lodged.

The project's soft rock is different from traditional hard rock magnetite and allows a very different approach to the typical magnetite mining and processing challenges (both technical and cost-related). The soft rock enables simple liberation of a product of rare quality without complex and expensive processing methods.

For personal use only



*The Hawsons Iron Project is located 60km south-west of Broken Hill, NSW, an ideal position for mining operations with existing power, rail and port infrastructure available.*

For further information please contact:

Quentin Hill  
Managing Director  
+61 7 3220 2022

# Appendix 1

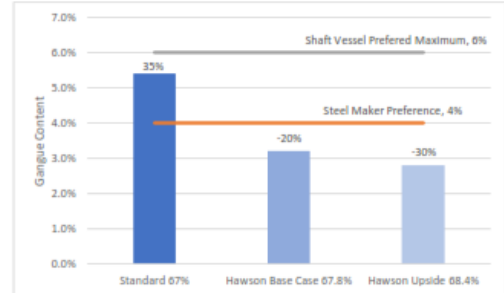
## Slide A – Gangue Content Reduction & Increased Metallisation Benefits

FEC

Value in Use - DRI

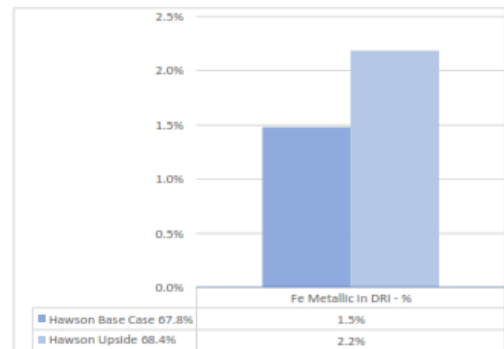
### Gangue in the Product

From FEC experience the majority of steelmakers want <4% if possible and most operations do not accept more than 6%. The Hawson product shows a significant improvement of the Standard. Gangue constituents such as silica and alumina must be balanced in the next process stage EAF slag to ensure that the slag does not aggressively erode the refractory.



### Improved Metallisation

The increased metallic iron content in the DRI using Hawsons ore replaces iron ore (not reduced) gangue and carbon. Meaning higher efficiency in in the steel making process, the EAF as energy is directed to metal not gangue.



## Slide B – EAF Increased Productivity & Cost Reduction

FEC

Value In Use - EAF

### Impact on EAF – Benefits – Improvements in Output

Steelmakers can expect to see outputs increase and less waste – the increase in productivity will allow for additional tonnes to steel to be cast in a same facility. Also less waste and improved quality mean some products in the high value chain may become more achievable

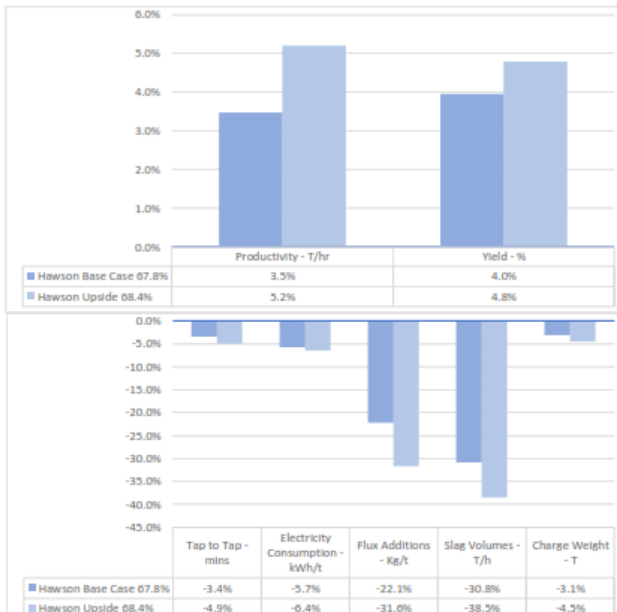
- Operations of 150 t tap weight @ 7,200 hr/yr could expect to produce an additional 80 Kt/yr

### Benefits – Reduction in Costs

Every steelmaker's focus is on being the lowest cost producer possible,

- lower electricity consumption results in reduced maintenance on electrical infrastructure
- Reduced flux procurement - also help increase refractory life
- Smaller volumes of slag need less storage and processing
- Improved yield means less input material for the same tap weight – less in, same out

### Percentage Improvement over the Standard 67%



For personal use only

## Appendix 2 – Steel Pricing & Operating Cost Data

Scenario		Unit Cost/ Sales \$/unit		Standard 67%	Hawson Base Case 67.8%		Hawson Upside 68.4%	
				US\$	\$ Revenue & Op Cost	\$ Increase & Savings	\$ Revenue & Op Cost	\$ Increase & Savings
Unit		Sales Volumes US\$pa (CFR Dubai)	US\$460/t					
Productivity Benefit	T/hr			705,456,000	729,964,800	24,508,800	742,152,960	36,696,960
Electricity Consumption	kWh/t	Op Cost Saving \$/t	0.08	33.93	31.98	-1.95	31.746	-2.184
Flux Additions	Kg/t	Op Cost Saving \$/t	0.01	0.8931	0.6955	-0.1976	0.611	-0.2821
Slag Volumes	T/h	Assumed Handling \$/t	5	0.26	0.18	-0.08	0.16	-0.10

*Source: FEC – typical 150t ladle EAF operation ~1.5Mtpa of liquid steel*

For personal use only



Carpentaria Resources Tenement Schedule  
at end of 2019 December Quarter

8 licences and applications

Licence	Notes	Name	Original Grant Date	Expiry Date	Equity %	Sub Blocks	Area (km <sup>2</sup> )
EL 6901	5	Combaning	8/10/2007	08/10/2020	10	21	61
EL 6979	1,2	Redan	11/12/2007	11/12/2021	69.8	62	180
EL 7208	2	Burta	22/09/2008	22/09/2020	69.8	100	290
EL 7504	2	Little Peak	08/04/2010	08/04/2020	69.8	14	41
EL 7896	5	Barellan	06/02/2012	06/02/2021	10	25	73
EL 8095		Advene	28/05/2013	28/05/2020	100	50	145
EL 6454		South Dam	10/12/2014	09/12/2021	100	6	17
MLA 460	3,4	Hawsons Iron	Under application	Under application	69.8	n/a	187
<b>TOTALS</b>						<b>278</b>	<b>994</b>

1. 1.5% NSR royalty to Perilya Broken Hill Pty Ltd.

2. JV; Pure Metals Pty Ltd.

3. MLA made on 18 October 2013; tenement application subject to unspecified grant date and conditions.

4. Subject to the Hawsons Joint Venture with Pure Metals Pty Ltd.

5. JV; Cape Clear Minerals Pty Ltd.



For personal use only

**DISCLOSURE**

The information in this report that relates to Exploration Results, Exploration Targets, Resources and Reserves is based on information evaluated by Mr Q.S. Hill who is a member of the Australian Institute of Geoscientists (MAIG) 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 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Hill is a Director of Carpentaria Resources Ltd and he consents to the inclusion in the report of the Exploration Results in the form and context in which they appear.

[www.carpentariares.com](http://www.carpentariares.com)

## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

**Name of entity:**

**CARPENTARIA RESOURCES LIMITED**

**ABN**

**63 095 117 981**

**Quarter ended ("current quarter")**

**31 December 2019**

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(215)	(381)
(b) product marketing	(42)	(145)
(c) production	-	-
(d) staff costs	(112)	(181)
(e) administration and corporate costs	(91)	(141)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	2
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes refund	-	-
1.7 Refunds	-	-
1.8 Business development costs	(111)	(228)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(570)</b>	<b>(1,074)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	
(b) tenements (see item 10)	-	
(c) investments	-	
(d) other non-current assets	-	

For personal use only

## Mining exploration entity and oil and gas exploration entity quarterly report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	
	(b) tenements (see item 10)	-	
	(c) investments	-	
	(d) other non-current assets	-	
2.3	Cash flows from loans to other entities	-	
2.4	Dividends received (see note 3)	-	
2.5	Other (provide details if material)	-	
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	-	
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	
3.2	Proceeds from issue of convertible notes	-	
3.3	Proceeds from exercise of share options	-	
3.4	Transaction costs related to issues of shares, convertible notes or options	-	
3.5	Proceeds from borrowings	-	
3.6	Repayment of borrowings	-	
3.7	Transaction costs related to loans and borrowings	-	
3.8	Dividends paid	-	
3.9	Other (provide details if material)	-	
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	-	
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	2,520	3,024
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(570)	(1,074)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,950</b>	<b>1,950</b>

5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	1,934	2,504
5.2 Call deposits	16	16
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,950</b>	<b>2,520</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

96

-

Director fees

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

-

-

For personal use only

## Mining exploration entity and oil and gas exploration entity quarterly report

8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

--

9. <b>Estimated cash outflows for next quarter</b>	\$A'000
9.1 Exploration and evaluation	406
9.2 Development	-
9.3 Production	-
9.4 Staff costs	112
9.5 Administration and corporate costs	42
9.6 Business development	86
<b>9.7 Total estimated cash outflows</b>	<b>646</b>

10. <b>Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

For personal use only

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:   
Company secretary

Date: 31 January 2020

Print name: Robert Hair

**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 that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.