

# Quarterly Activities Report

December 2019

This announcement has been authorised to be lodged with the ASX by the Board of Directors of PNX Metals Limited.



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## ASX: PNX

Issued Capital as at 28/01/20:  
2,435,288,142

## Board & Management:

Non Exec Chairman: Graham Ascough  
Non Exec Director: Paul J Dowd  
Non Exec Director: Peter J Watson  
Non Exec Director: David Hillier  
Non-Exec Director: Hans-Jörg Schmidt  
MD/CEO: James Fox  
CFO/Co Secretary: Angelo Gaudio

## Top Shareholders as at 28/01/20:

Delphi Unternehmensberatung 40.6%  
Marilei International Limited 6.4%  
Sochrastem SA 6.3%

## Share Registry:

Computershare  
Investor Services Pty Ltd  
Level 5 115 Grenfell Street  
Adelaide South Australia 5000  
Phone:  
1300 305 232 (within Australia)  
+61 3 9415 4657 (outside Australia)

## Quarterly Highlights:

### Northern Territory Project Development

PNX prioritising near-term gold production at Fountain Head with heap leach studies and development plans progressing on schedule.

- Approximately 3,500m of RC drilling completed with drilling ongoing for improved resource confidence and mine development planning
- Assay results from the December 2019 drilling program are expected from early February
- Diamond drilling for metallurgical test-work underway
- Lead advisor appointed to assist with financing of heap leach project
- Project Notice of Intent submitted to Northern Territory Environmental Protection Authority in December

### Corporate

- \$2.7 million cash on hand at 31 December 2019

PNX Metals Limited (ASX: PNX) ("PNX", "the Company") is pleased to present its quarterly activities report for the period ended 31 December 2019.

## Fountain Head Gold Project

After careful and comprehensive consideration of all options, the Company made a significant decision during the Quarter to focus its activities on near-term gold production from the Fountain Head Project, part of its Hayes Creek Project, in the Pine Creek region of the Northern Territory.

Heap leaching is currently being assessed as a low-cost, low-risk, scalable option for rapidly monetising, and generating early cashflow from existing, with the potential for extending, gold resources at Fountain Head. This strategy may also provide an opportunity to enhance overall Hayes Creek Project economics and extend the project mine life with the consequentially mined-out Fountain Head pit available for use as tailings storage for subsequent sulphide flotation of ore from the Mt Bonnie and Iron Blow zinc-gold-silver deposits at Hayes Creek.

Near-term development of gold resources also capitalises on a supportive current and forecast high gold price environment and preserves the in-ground value of the Hayes Creek Project in a low zinc price environment.

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Fountain Head hosts a Mineral Resource estimate of **2.58Mt at 1.7g/t Au for 138,000 oz Au** reported in accordance with the JORC Code and is owned 100% by PNX, (see *ASX release 11 July 2019 for full details including JORC tables*).

### ***Drilling Activities at Fountain Head***

In October, the Company completed a 16-hole drill program at Fountain Head that returned numerous mineralised intercepts confirming good high-grade continuity at depth and along strike, directly adjacent to the current resource envelope (see *ASX release 21 November 2019*). This drilling increased confidence in the geological model and highlighted the potential for further resource growth.

In November and December, a further 3,500m of reverse circulation (RC) drilling was completed over 39 holes at Fountain Head. Most of these holes are located on the western side of the deposit and relate to the proposed first year of mining (Figure 1). Assay results from the December 2019 drilling program are expected from early February. The balance of RC drilling, approximately 2,000m in areas of the deposit that are to be mined later in the project schedule, has commenced and will be completed by mid-February, with assays expected in March. As yet, the NT wet season has had no material effect on progress.

The aim of the drill program is to test areas of open mineralisation adjacent to the current resource envelope and potential higher-grade 'trap sites' within the resource estimate. Interpretation of controls over the gold mineralisation suggests increased grades and thicker intercepts typically occur at the intersection between vertical feeder structures and the anticline fold axis.

Once all assays have been received, assessed and reported, an update to the Fountain Head Mineral Resource will be completed.

### ***Metallurgical Testwork***

Excellent gold recoveries with low reagent consumption were achieved from metallurgical test work during the quarter (see *ASX release 7 November 2019*), resulting in PNX accelerating studies and the approvals process for the development of a gold heap leach operation at Fountain Head.

Five bottle roll tests were completed by Bureau Veritas Metallurgy Laboratories (BV) in Adelaide on representative reverse circulation drill chip samples taken from various locations within the modelled resource shell.

Excellent cyanide soluble (CN) gold recoveries from 88.9% to 97% were achieved on samples with grades ranging from 0.24g/t Au up to 24.05g/t Au. The recoveries of gold and silver, along with low cyanide and lime consumption rates compare favourably with other global gold heap leach projects. These results are consistent with historical data from 1996, which also reported high CN soluble gold recoveries predominantly in excess of 90%.

Heap leach specific column tests for use in scaled-up modelling and materials handling tests are now underway.

Diamond drilling is also underway to provide further samples for ongoing metallurgical test-work, including bottle rolls and column tests. Materials testing including Bond Work Index and Unconfined Compressive Strength testing have been completed, with this information to be used for crusher and materials handling design.

### ***Lead Financial Advisor Appointed***

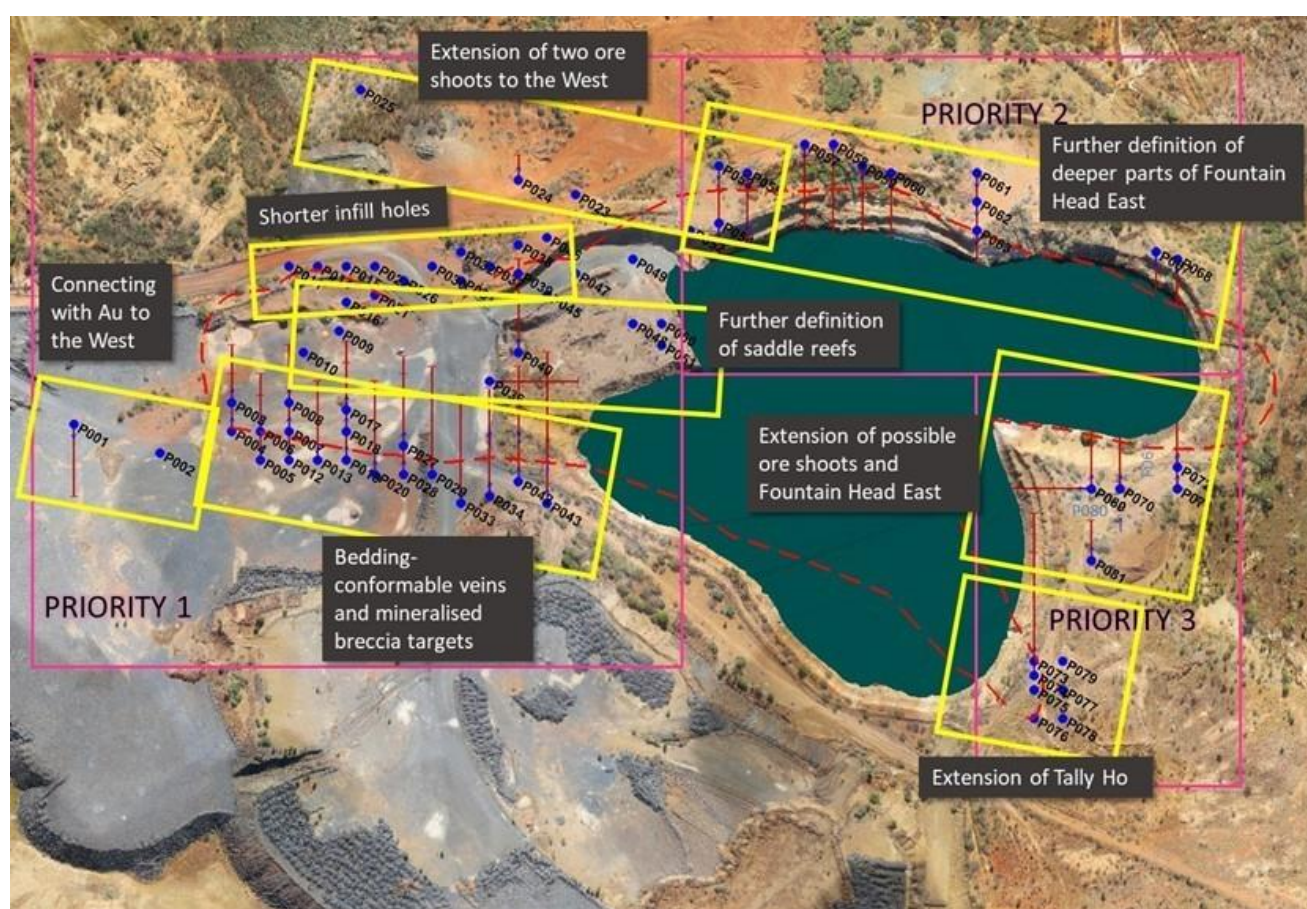
With increased confidence in the potential of the Fountain Head heap leach project, the Company has appointed Medea Natural Resources Ltd ("Medea") as lead financial advisor to assist with the negotiation, structuring and arrangement of project financing (see *ASX release 19 December 2019*).

Medea is a global corporate and capital advisory firm specialising in the mining and metals sector and has offices in London and Singapore. Medea will advise PNX to ensure appropriate financing is in place as Fountain Head is

advanced towards a development decision so that the Company’s proposed short timeline to production can be achieved.

### Permitting and Approvals

The Project Notice of Intent (NOI) was submitted to the Northern Territory Environmental Protection Authority (NT EPA) prior in December 2019. Feedback is expected within the next few weeks but the expectation is that an Environmental Impact Statement (EIS) will be required. Studies relating to the expected EIS are ongoing and are expected to be completed by April. Mine Management Plans for pit dewatering are also progressing and are expected to be submitted for approval during March 2020.



**Figure 1:** Planned drilling at Fountain Head in relation to existing pit and resource (red outline shows current resource projected to surface) showing areas of priority and aim of drilling.

### Hayes Creek Zinc and Precious Metals Project

The Hayes Creek Project is comprised of the Iron Blow and Mt Bonnie zinc-gold-silver deposits located less than 3km apart on wholly owned Mineral Leases within the Pine Creek region of the Northern Territory, 170km south of Darwin (Figure 1).

Funds have been re-allocated from the Hayes Creek Definitive Feasibility Study (DFS) to accelerate activities at Fountain Head. As such, the majority of DFS activities have been deferred until the completion of the Fountain Head studies (see ASX release 12 December 2019).

### Cookies Corner prospect (Burnside project) and Moline Project

No significant activity took place on the Burnside and Moline projects during the December quarter, with all resources directed to Fountain Head.

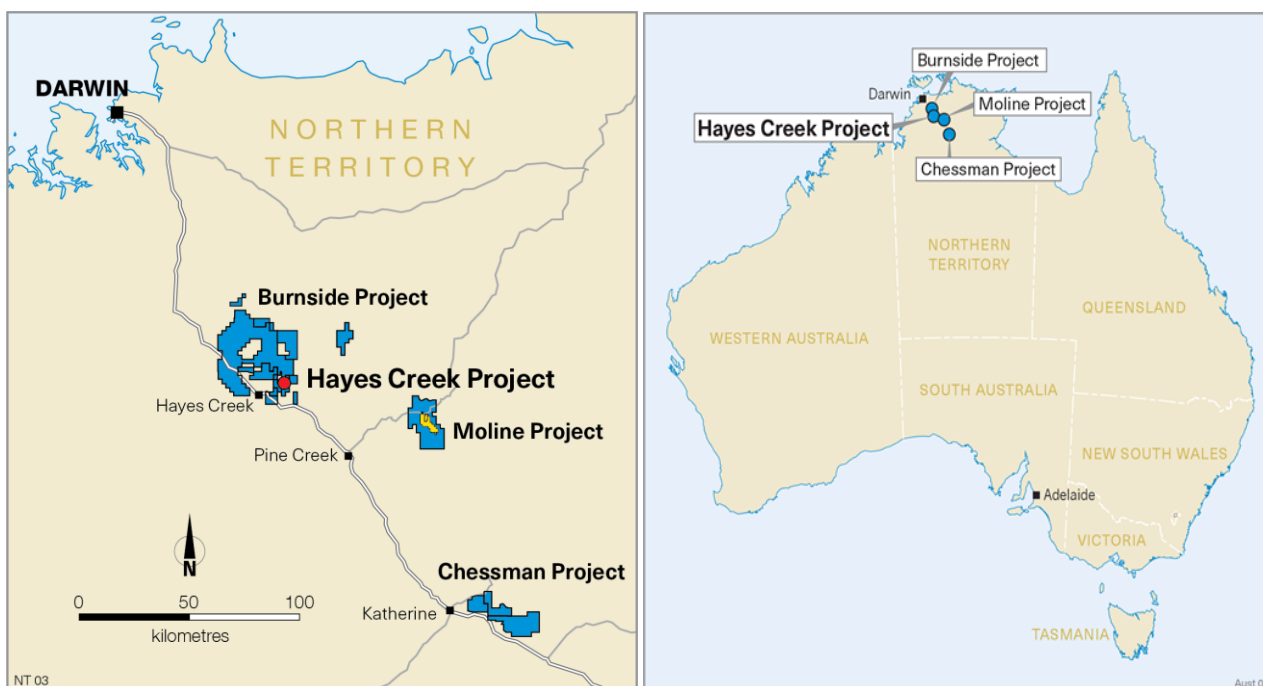


Figure 2: NT Project locations

## South Australia Exploration

### Yorke Peninsula & Adelaide Geosyncline Projects

No on-ground exploration activities were undertaken on the Company's Yorke Peninsula or Adelaide Geosyncline exploration tenements during the quarter.

Ausmex Mining Group Limited (ASX: AMG) is farming-in to PNX's eight exploration licences in the Burra area. Ausmex can earn up to a 90% interest over two stages (60% and 90%) by spending a minimum of \$300,000 in each stage on diamond drilling or other agreed exploratory work. The first stage of earn-in was completed by 31 December 2019, with PNX currently assessing the information and data provided by AMG. (See Ausmex Mining Group ASX releases for further information on work completed during the quarter).

All South Australian tenements remain in good standing.

### Financial & Corporate

Cash on hand at 31 December 2020 was \$2.7 million.

As at 31 December 2019 the Company had 2,435,288,142 fully paid ordinary shares on issue, and;

- 433,125,000 unquoted options with a 1.50 cent exercise price expiring 30 September 2021;
- 20,000,000 unquoted options with a 1.47 cent exercise price expiring 30 October 2020; and
- 12,440,000 performance rights

### Planned Activities March 2020 Quarter:

#### *Fountain Head gold Heap Leach development*

- 
- Completion of RC and diamond drilling subject to any unplanned weather delays over the Northern Territory wet season. Drilling is designed to increase geological confidence in the Fountain Head mineral resource model, extend the known gold mineralisation, and identify new areas with the potential to augment the current mineral resource
  - Receipt and interpretation of drill assays from the December 2019 drilling and the ongoing drilling
  - Updating the Fountain Head Mineral Resource which will be used for final pit optimisation and scheduling
  - Ongoing metallurgical test work and analysis will be completed on samples from the RC drilling and surface trenching to confirm gold recoveries, reagent consumption and other heap leach design criteria
  - Environmental approvals submission to NT EPA under an EIS
  - Mine Management Plan submission for dewatering of the Fountain Head pit

**James Fox**

Managing Director & CEO

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**Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Bradley Ermel, a Competent Person who is a Member of the Australian Institute of geoscientists (AIG). Mr Ermel has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken 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". Mr Ermel is a full-time employee of PNX Metals Ltd and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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### **Fountain Head Resource Estimate**

Independent mining consultants CSA Global Pty Ltd (“CSA Global”) have estimated the Mineral Resource in accordance with the JORC Code<sup>1</sup>, which is summarised in Table 1.

**Table 1:** Fountain Head and Tally Ho Mineral Resources by JORC Classification as at 11 July 2019 estimated utilising a cut-off grade of >0.7 g/t Au which is consistent with the assumed open cut mining method (see PNX ASX release 11 July 2019).

JORC Classification	Tonnage (Mt)	Au (g/t)	Ounces (Koz)
<b>Tally Ho</b>			
Indicated	0.94	2.0	59
Inferred	–	–	–
<b>Total</b>	<b>0.94</b>	<b>2.0</b>	<b>59</b>
<b>Fountain Head</b>			
Indicated	<b>0.50</b>	<b>1.5</b>	<b>23</b>
Inferred	<b>1.15</b>	<b>1.5</b>	<b>55</b>
<b>Total</b>	<b>1.64</b>	<b>1.5</b>	<b>79</b>
<b>Total Fountain Head + Tally Ho*</b>			
Indicated	<b>1.43</b>	<b>1.8</b>	<b>83</b>
Inferred	<b>1.15</b>	<b>1.5</b>	<b>55</b>
<b>Total</b>	<b>2.58</b>	<b>1.7</b>	<b>138</b>

\* Due to the effects of rounding, the total may not represent the sum of all components

<sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

TENEMENTS

Northern Territory

Tenement	Name	Holder	Area Hectare
ML30512	Mt Bonnie	PNX Metals Ltd 100%	6.4
ML30589	Mt Bonnie		31.6
MLN1033	Mt Bonnie		4.8
MLN1039	Mt Bonnie		1.2
MLN214	Iron Blow		6.3
MLN341	Iron Blow		14.9
MLN342	Mt Bonnie		13.7
MLN343	Iron Blow		14.9
MLN346	Mt Bonnie		16.0
MLN349	Iron Blow		15.0
MLN405	Mt Bonnie		12.0
MLN459	Mt Bonnie		15.0
MLN811	Mt Bonnie		8.1
MLN816	Mt Bonnie		8.1
<b>Total Hayes Creek</b>			<b>168.0</b>
MLN794	Fishers-1	PNX Metals Ltd 100%	8.1
MLN795	Fishers-2		8.1
ML30936	Good Shepherd		106.0
<b>Total Other</b>			<b>122.2</b>
ML31124	Fountain Head	PNX Metals Ltd 100%	33.5
MLN1020	Fountain Head		12.0
MLN4	Fountain Head		529.9
MLN1034	Fountain Head		304.2
<b>Total Fountain Head</b>			<b>879.6</b>
<b>Moline</b>			
ML24173	Moline	PNX Metals Ltd 100%	3126.0
MLN1059	Moline		418.7
MLN41	Mt Evelyn		8.9
<b>Total Moline</b>			<b>3,553.6</b>
<b>Total Mineral Leases</b>			<b>4,723.4</b>
EL28616	Moline	PNX Metals Ltd 100%	262.5 km <sup>2</sup>
EL31099	Bridge Creek	PNX Metals Ltd 100%	60.2km <sup>2</sup>
EL31893	Ringwood Station	PNX Metals Ltd 100%	23.4km <sup>2</sup>
<b>Total Exploration Licences</b>			<b>346.1km<sup>2</sup></b>

## Northern Territory – Farm-in Tenements

Tenement	Name	Holder	(Area sq km)
<b>Burnside Project *</b>			
EL10012	Mt Ringwood	PNX Metals Ltd 90%, Newmarket 10%	14.9
EL10347	Golden Dyke		10.0
EL23431	Thunderball		13.4
EL23536	Brocks Creek		70.4
EL23540	Jenkins		16.7
EL23541	Cosmo North		3.3
EL24018	Hayes Creek		23.4
EL24051	Margaret River		86.9
EL24058	Yam Creek		3.3
EL24351	McCallum Creek		13.4
EL24405	Yam Creek		4.1
EL24409	Brocks Creek South		22.1
EL24715	Mt Masson		56.8
EL25295	Margaret Diggings		10.0
EL25748	Burnside		584.5
EL9608	Mt Bonnie		10.0
<b>Chessman Project *</b>			
<b>Tenement</b>	<b>Name</b>		
EL25054	Maud	PNX Metals Ltd 90%, Newmarket 10%	64.0
EL28902	Maud		104.5
ML30293	Chessman		1.1
<b>Total Exploration Licences</b>			<b>1,112.8</b>

\*PNX Metals Ltd earned a 90% interest under a farm-in agreement with Newmarket Gold NT Holdings Pty Ltd (Newmarket)



## South Australia

Exploration Licences	Name	Holder	(Area sq. km)
<b>Adelaide Geosyncline **</b>			
EL6326	Burra Central	PNX Metals Ltd 100%	84
EL5874	Burra West		69
EL6150	Burra North		300
EL6327	Mongolata		60
EL5918	Princess Royal		314
EL6386	Bagot Well		71
EL5910	Spalding		157
ELA2019/00085	Washpool		135
<b>Yorke Peninsula</b>			
EL6399	Coonarie	PNX Metals Ltd 100%	254
			<b>254</b>
<b>Total Exploration Licences</b>			<b>1,444</b>

*\*\* Ausmex Mining Group Ltd earning up to 90% in these tenements over 2 stages under a farm-in agreement*

## Appendix 5B

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

**Name of entity**

PNX METALS LIMITED

**ABN**

67 127 446 271

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

31 DECEMBER 2019

<b>Consolidated statement of cash flows</b>	<b>Current quarter</b>	<b>Year to date</b>
	<b>\$A'000</b>	<b>(6 months)</b>
		<b>\$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(1,344)	(2,091)
(b) development	-	-
(c) production	-	-
(d) staff costs*	(158)	(334)
(e) administration and corporate costs	(132)	(355)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	8	16
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	170
1.8 Other	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,626)</b>	<b>(2,594)</b>

\*excluding costs included in exploration expenditure

<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	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter</b>	<b>Year to date (6 months)</b>
	<b>\$A'000</b>	<b>\$A'000</b>
(d) other non-current assets	-	-
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	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3. 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 Loan repayment	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	4,336	5,304
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,626)	(2,594)

<b>Consolidated statement of cash flows</b>		<b>Current quarter</b>	<b>Year to date (6 months)</b>
		<b>\$A'000</b>	<b>\$A'000</b>
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>2,710</b>	<b>2,710</b>

<b>5. Reconciliation of cash and cash equivalents</b>	<b>Current quarter</b>	<b>Previous quarter</b>	
at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>\$A'000</b>	<b>\$A'000</b>	
5.1	Bank balances	510	836
5.2	Call deposits	2,200	3,500
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,710</b>	<b>4,336</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

<b>Current quarter</b>
<b>\$A'000</b>
40
-

Transactions during the current quarter include:

- 1) Non-executive Director fees and superannuation of \$39k.
- 2) Legal costs of \$1k were paid to a firm associated with a non-executive director, Peter Watson.

<b>7. Payments to related entities of the entity and their associates</b>	<b>Current quarter \$A'000</b>
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	

\*None other than those payments described in Item 6 above.

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
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.		

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation *	1,000
9.2 Development	-
9.3 Production	-
9.4 Staff costs (net of outflows included in item 9.1 exploration)	150
9.5 Administration and corporate costs	135
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>1,285</b>

\* Predominantly in relation to Fountain Head project studies

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	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.	EL 6065 EL 5491 EL 4893 (All in South Australia)	Relinquished. Relinquished. Relinquished.	100% 100% 100%	0% 0% 0%
10.2	Interests in mining tenements and petroleum tenements acquired or increased.	-	-	-	-

### 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: 30 January 2020.

Print name: Angelo Gaudio

### 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.