



## Aeon Metals

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Limited

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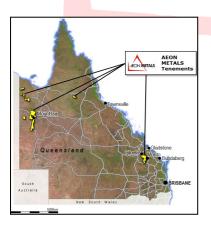
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**ASX Code - AML** 

Shares on Issue: 673m Share Price: \$0.20 Market Capitalisation: \$135m Cash (30 June 2019): \$7.0m

All mineral resources projects located in Queensland:



## Quarterly Report For the three months ending 30 June 2019

The 2019 Walford Creek drilling program commenced on 3 May 2019 with a single drill rig undertaking RC pre-collars. A second rig arrived on site and commenced diamond drilling of those RC pre-collars on 13 May 2019. Highlights of drilling to-date include:

- 6 RC step-out holes now completed west of Amy Resource boundary with all holes intersecting the PY3 mineralisation.
- Mineralised PY3 now identified over a total distance of approx.
   12.5km from eastern end of the currently planned Vardy pit design.
- High-grade intersections within infill resource drilling at Vardy expected to increase Resource volume, grade and confidence levels and potentially extend preliminary open pit dimensions. Best intercept of 37m at 1.27% Cu, 0.17% Co and 41g/t Ag from 285m, including 24m at 1.69% Cu, 0.20% Co and 41g/t Ag from 288m (hole WFDH419 as announced on 26 July 2019).

Metallurgical testwork results and outcomes during the quarter included:

- Comminution testwork results similar to previous parameters for Vardy PY3. Supports standard front-end of primary crusher, screening, then SAG/ball milling in closed circuit with a cyclone cluster.
- Flotation circuit finalised. This will consist of a pre-float for ~10% of the cobalt/pyrite mineral, followed by copper, lead, zinc and cobalt/pyrite flotation. Excellent indicative copper recoveries to concentrate of approx. 90%. A marketable copper concentrate grading at approx. 24% Cu.
- During July bioleaching was selected as the process route for intermediate cobalt concentrate. Bioleach testwork achieved average cobalt extraction to solution of 97%. Preliminary estimates suggest bioleach delivers a 20-40% reduction in both forecast Project preproduction capital and estimated C1 operating costs.

During the quarter, Aeon also applied for additional tenure in the broader Walford Creek province and entered into a low-cost earn-in arrangement to earn 100% of another tenement (Basin Edge Project). These additional tenements now add a further 130km of potential strike extent to the east to the current regional tenement holdings.



#### Walford Creek Project (100% Aeon)

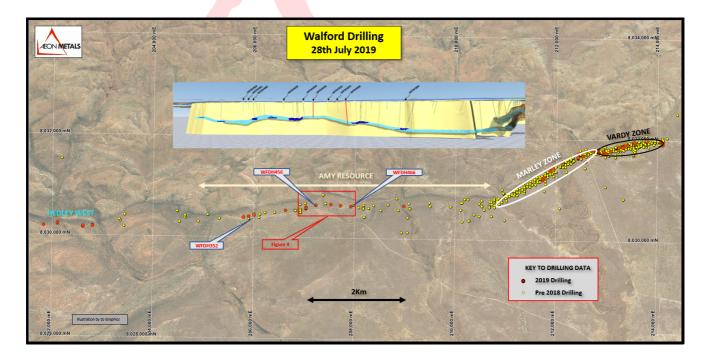
#### 2019 drilling program

The 2019 Walford Creek drilling program commenced on 3 May 2019 with a single drill rig undertaking reverse circulation (**RC**) pre-collars. A second rig arrived on site and commenced diamond drilling of those RC pre-collars on 13 May 2019.

The 2019 drill program consists of a combination of exploration outside of current Resource boundaries and drill holes planned as part of priority work for the Walford Creek Pre-Feasibility Study (**PFS**) (including additions to the Resource, geotechnical, metallurgical, water, and environmental datasets).

Areas planned to be drilled in 2019 include:

- the western Amy extension;
- below the PY3 lode (following-up a previous intercept of 10m at 5% Cu not currently included in the Marley Resource);
- within the Amy Resource (5.8km strike); and
- continuation of the eastern Vardy extension.



For further details on the commencement of the 2019 drilling program at Walford Creek, refer to Aeon ASX release dated 2 May 2019, *Drilling Underway at Walford Creek*.

#### Amy western extension

Initial RC exploration drilling has focussed on an area that is approximately 12.0-12.5km from the eastern end of the currently planned Vardy pit design and approximately 2.0-2.5km west of the Amy Resource boundary. Six RC step-out holes were completed in this area to locate the Fish River Fault (**FRF**) and identify the prospective stratigraphic horizons. All six holes intersected the prospective PY3 mineralisation.



Assay results for the first four holes have been received with a best intersection of 7m @ 0.80% Cu and 0.13% Co from 93m (including 3m @ 1.31% Cu, 0.25% Co and 22gt Ag from 97m). The two additional step-out RC holes, located approximately 500m further west, have also intercepted the prospective PY3 unit at approximately 20m below surface. The chip samples from these two holes show similar sulphide minerals to the initial four holes. Assays for these two holes are pending.

Mineralised PY3 has now been identified over a total distance of approx. 12.5km from the eastern end of the currently planned Vardy pit design, an extension of approximately 1.5km from before these six holes were drilled.

For further details on the drilling activity to the west of the Amy zone, refer to Aeon ASX releases dated 18 July 2019, Further Step Out Success West of Amy, and 13 June 2019, Mineralised PY3 Defined in Drilling West of Amy.

#### Vardy infill drilling

High-grade assay results have been returned from infill drilling of current resource zones at Vardy during the quarter. Holes WFDH418 and WFDH419 have both returned strong results that have consolidated the deeper, and previously under-drilled, western end of the Vardy resource. These results are expected to increase volume, grade and confidence levels of the Vardy resource estimate within this area.

A best intercept of 37m at 1.27% Cu, 0.17% Co and 41g/t Ag from 285m, including 24m at 1.69% Cu, 0.20% Co and 41g/t Ag from 288m, was returned from hole WFDH419.

The two infill holes form part of a completed 29-hole Vardy/Marley drilling program targeted at increasing the confidence of the resource estimates as well as collecting key metallurgical and geotechnical data for the ongoing feasibility study programs. Full assay results from this program are expected in the coming month.

For further details on the Vardy infill drilling program and initial results, refer to Aeon ASX release dated 26 July 2019, *High-Grade Vardy Drilling Results*.

#### Metallurgical testwork update

Metallurgical testwork activities associated with the PFS work continued during the quarter. Results demonstrated that a fairly standard flotation circuit is set to deliver excellent copper flotation recoveries and produce a marketable copper concentrate.

Highlights from these testing workstreams included:

- Comminution testwork parameters for Vardy PY3 similar to previous results. These outcomes support a standard front-end plant configuration of primary crusher, screening, then SAG/ball milling in closed circuit with a cyclone cluster. Primary grind size is expected to be 60 microns.
- **Finalisation of flotation circuit design.** This will consist of a pre-float for ~10% of the cobalt/pyrite mineral, followed by copper, lead, zinc and cobalt/pyrite flotation. Additional variability work is planned to confirm parameters for the Marley and Amy Resource.
- **Excellent copper recoveries.** Testwork results have evidenced indicative copper recoveries to concentrate of approximately 90%. This testing has also shown that a marketable copper concentrate grading at approximately 24% Cu can be produced.
- **Strong cobalt recoveries.** Testwork has also resulted in indicative cobalt recoveries to cobalt intermediate concentrate of approximately 75%.



Cobalt concentrate process. Aeon's focus during and after the quarter has been on cobalt pyrite
processing routes that minimise or eliminate excess acid production. On 30 July 2019 the Company
announced that the selected process is a conventional bioleach process which will deliver clear
benefits through reduced project scope, potentially lower upfront capital and greater economic
leverage to primary metal production.

For further details of PFS metallurgical testwork activities, refer to Aeon ASX release dated 30 May 2019, Excellent Walford Creek Metallurgy

#### **Bioleach Process Selection**

During the quarter, ALS Metallurgical Laboratories undertook a series of bioleach tests on Walford Creek Vardy PY1 cobalt intermediate concentrate. Results from this testwork saw an average cobalt extraction from concentrate to solution of 97% with a quick relative resonance time (sub-24 hours).

Bioleaching is an established process utilised for treating sulphide ores globally in 50+ commercial plants installed over the past 30+ years. Preliminary estimates suggest that selection of bioleach for Walford Creek over alternative cobalt concentrate processes delivers:

- 20-40% reduction in forecast project pre-production capital;
- 20-40% reduction in estimated C1 operating cost; and
- 15-25% reduction in expected project power requirements.

The strong amenability of the Vardy cobalt concentrate to bioleaching combined with the high Co recovery results, short leach time, significantly lower estimated capital and operating costs, absence of surplus acid production and eco-friendly nature of bioleaching have underpinned the bioleach pathway to treat the intermediate cobalt concentrate from Walford Creek.

For further details of the Walford Creek flowsheet design, refer to Aeon ASX release dated 30 July 2019, Bioleach Selected for Process Flowsheet

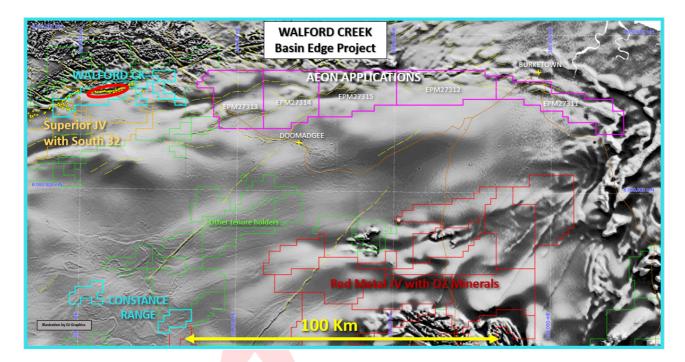
#### Other PFS Activities

During the quarter, activity continued on other matters relevant to the future PFS including, roads, mine design, power, water supply, tailings, waste rock management, and environmental requirements.

#### **Basin Edge Project**

Following the considerable success of the Walford Creek 2018 exploration campaign, recent regional transactional activity has highlighted increased corporate and strategic interest in the prospectivity of the broader Walford Creek mineral province. These recent investment activities include the South32/Superior JV abutting the north and south of the Walford Creek Project and the Oz Minerals/Red Metal JV focused on the southern edge of the basin (see image below).





Through application for five additional mineral exploration permits (EPMs) covering 1,555km<sup>2</sup> and finalisation of a low, upfront cost earn-in arrangement over an adjoining EPM located immediately east of the Walford Creek tenements (EPM 26316), Aeon has also now added a further 130km of potential strike extent to the east to its regional tenement holdings.

These new tenement holdings, to be known as the Basin Edge Project, lie on the northern basin bounding fault architecture. This structure is interpreted as a continuation of the Fish River Fault that hosts the Walford Creek deposits. Aeon's enhanced understanding of the geological controls of the Walford Creek system have highlighted the Basin Edge tenure as prospective for further, structurally controlled copper deposition.

The Basin Edge Project is set to be allocated a modest exploration budget (sub-A\$500,000) over the next eighteen months. This spend is expected to focus on historical data review and geophysical targeting work.

Basin Edge represents a low-cost opportunity for Aeon to leverage its understanding of the Walford Creek geology into potential basin-scale regional exploration upside. Aeon's core focus however remains rapid advancement of the world-class Walford Creek Project. Initial spend levels on Basin Edge are designed to be modest and activity will be structured to avoid any disruption to workstreams on Walford Creek.

For further details of the Basin Edge Project tenure and strategy, refer to Aeon ASX release dated 4 July 2019, Basin Edge Project.

#### Safety

Following the successful commencement of 2019 drilling operations at Walford Creek, there have unfortunately been three minor injuries, one of which resulted in a lost time case (knee injury). All injuries occurred during the process of conducting normal work on the drill rig by the drilling contractor. As a result of these events, the operational tasks and sites were investigated, resulting in several improvements to tooling, techniques and site layouts, all of which have been implemented in consultation with the operational teams.



#### **Corporate**

On 2 July 2019, the Company announced the appointment of Dr Fred Hess as an independent non-executive Director. Fred brings extensive and diverse operating and development experience to the Aeon Board. His career spans more than 35 years in mining project development, operations and senior management across the Asia Pacific region.

For further details of Fred's appointment and professional experience, refer to Aeon ASX release dated 2 July 2019, Independent Director Appointment Dr Fred Hess.

#### **Exploration & Evaluation Expenditure**

During the quarter, the Company expended approximately \$2.9m on exploration and evaluation activities at Walford Creek.

No significant exploration work was undertaken on the Company's other exploration tenements during the quarter.

As at 30 June 2019, the Company had available cash of approximately \$7.0 million.

#### **Appendix 5B**

The Company's Appendix 5B cash report is attached.

For more information, please contact:

Hamish Collins Managing Director info@aeonmetals.com.au www.aeonmetals.com.au





#### **APPENDIX 1 - TENEMENT HOLDINGS AS AT 30 JUNE 2019**

TENEMENT HOLDER	TENEMENT I.D.	LOCATION	INTEREST HELD
Aeon Metals Limited	EPM 14628	Northwest of Monto, Qld	100%
Aeon Metals Limited	EPM 15921	Northwest of Monto, Qld	100%
Aeon Metals Limited	EPM 17001	Northwest of Monto, Qld	100%
Aeon Metals Limited	EPM 17002	Northwest of Monto, Qld	100%
Aeon Metals Limited	EPM 17060	West of Monto, Qld	100%
Aeon Metals Limited	MDL 462	Northwest of Monto, Qld	100%
Aussie NQ Resources Pty Ltd	EPM 18359	South of Georgetown, Qld	100%
SLW Queensland Pty Ltd	EPM 19029	West of Monto, Qld	60%
Aeon Walford Creek Limited	EPM 11898	Mount Isa West	80%
Aeon Walford Creek Limited	EPM 13412	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 13413	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 13682	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 14040	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 14220	Walford Creek	100%
Aeon Walford Creek Limited	EPM 14233	Mount Isa South	72%
Aeon Walford Creek Limited	EPM 14694	Mount Isa North	80%
Aeon Walford Creek Limited	EPM 14712	Constance Range	80%
Aeon Walford Creek Limited	EPM 14713	Constance Range	80%
Aeon Walford Creek Limited	EPM 14821	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 14854	Walford Creek	100%
Aeon Walford Creek Limited	EPM 14935	Constance Range	80%
Aeon Walford Creek Limited	EPM 15156	Mount Isa South	80%
Aeon Walford Creek Limited	EPM 15186	Constance Range	80%
Aeon Walford Creek Limited	EPM 15911	Mount Isa South	100%
Aeon Walford Creek Limited	EPM 16921	Mount Isa North	100%
Aeon Walford Creek Limited	EPM 17297	Mount Isa South	100%
Aeon Walford Creek Limited	EPM 17300	Mount Isa North	100%
Summit Resources (Aust) Pty Ltd	EPM 17513	Mount Isa North	20%
Summit Resources (Aust) Pty Ltd	EPM 17514	Mount Isa North	20%
Summit Resources (Aust) Pty Ltd	EPM 17519	Mount Isa North	20%
Aeon Walford Creek Limited	EPM 18395	Mount Isa West	100%
Aeon Walford Creek Limited	EPM 18552	Walford Creek	100%
Aeon Walford Creek Limited	EPM 18769	Mount Isa West	100%
Aeon Walford Creek Limited	EPM 26906	Walford Creek	100%



#### **APPENDIX 2 - COMPETENT PERSONS STATEMENT**

The information in this report that relates to Exploration Results for the Walford Creek Deposit is based on information compiled Mr Dan Johnson who is a Member of the Australian Institute of Geoscientists 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 Dan Johnson is a full-time employee of Aeon Metals Limited and consents to the inclusion in the presentation of the Exploration Results in the form and context in which they appear.

The data in this report that relates to Mineral Resource Estimates is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) 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 Tear is a Director of H&S Consultants Pty Ltd and he consents to the inclusion in the report of Mineral Resource Estimates in the form and context in which they appear.





### 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

	AEON METALS LIMITED				
ABN		Quarter ended ("current quarter")			
	91 121 964 725	30 June 2019			
1					

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from ope <mark>rati</mark> ng activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(2,867)	(10,818)
	(b) development		
	(c) production		
	(d) staff costs	(439)	(1,865)
	(e) administration and corporate costs	(266)	(1,113)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	27	99
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(3,545)	(13,697)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(3)	(7)
	(b) tenements (see item 10)	-	-



Cons	olidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
	(c) investments	-	-
	(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 (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(3)	(7)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	11,900	11,933
3.4	Transaction costs related to issues of shares, convertible notes or options		
3.5	Proceeds from borrowings	8,000	8,000
3.6	Repayment of borrowings	(11,900)	(11,900)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	8,000	8,033

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,579	12,702
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,545)	(13,697)



Cons	olidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(3)	(7)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	8,000	8,033
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	7,031	7,031

5.	Reconciliation of cash and cash equivalents 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	980	629
5.2	Call deposits	6,051	1,950
5.3	Bank overdrafts	-	-
5.4	Other (provide de <mark>tail</mark> s)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	7,031	2,579

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	183
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 transletems 6.1 and 6.2	sactions included in



7.	Payments to related entities of the entity and their associates	Current quarter \$A'000
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 traitems 7.1 and 7.2	nsactions included in

8.	<b>Financing facilities</b> Add notes as necessary understanding of the position	<b>available</b> for an	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities		Nil	Nil
8.2	Credit standby arrangements		30	Nil
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.

The company maintains an ANZ Credit Card Facility totalling \$30,000, with a rate of 17.74%PA on purchases not paid for within the relevant period. This facility is split across five separate cards, and the full \$30,000 is undrawn.

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	3,800
9.2	Development	-
9.3	Production	-
9.4	Staff costs	450
9.5	Administration and corporate costs	350
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	4,600



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	EPM 16921 EPM 17300 EPM 17297 EPM 18395 EPM 13682	Fully relinquished Fully relinquished Fully relinquished Fully relinquished Relinquished 21 sub-blocks	100 100 100 100 100	0 0 0 0 0 100
10.2	Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

#### Compliance statement

This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

Date: 31 July 2019.

2 This statement gives a true and fair view of the matters disclosed.

Sign here:

(Managing Director)

Print name: Hamish Collins.

#### **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.