

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 31 DECEMBER 2019

Aeon Metals Limited (ASX:AML) (“Aeon” or “the Company”) is pleased to present its activities report for the quarter ended 31 December 2019.

### Highlights:

- Walford Creek Project Scoping Study released<sup>1</sup> demonstrating that this high-grade polymetallic asset is amenable to development – both technically and economically.
  - Conventional open pit and underground mining of existing Vardy and Marley deposits delivering an initial operating life of approx. 11 years.
  - 1.5Mtpa heap leach of lower-grade material combined with 2.0Mtpa flotation process plant to treat higher grade material. Commercially proven bio-leaching of cobalt concentrate.
  - Final product streams of copper, lead and zinc concentrates plus cobalt-nickel sulphide and zinc sulphide.
  - Total contained production of 146kt copper and 22kt cobalt (plus zinc, lead, silver and nickel). Total copper equivalent (CuEq) production of 446kt and average annual CuEq output of 42.5kt.
  - Average cash operating cost of US\$1.52/lb CuEq and AISC of US\$1.56/lb CuEq.
  - Forecast pre-production capital expenditure of A\$323M, representing a globally attractive pre-production capital intensity of approximately US\$5,500/t of annual CuEq output.
  - Ungeared, real, post-tax NPV8% of A\$431M. Post-tax internal rate of return (IRR) of 34% and payback of 3 years.
- Substantial upgrade to Walford Creek Mineral Resource estimates<sup>2</sup>:
  - Total Vardy & Marley Mineral Resources now 35.8mt @ 1.94% CuEq over 3.6km strike:
    - *Copper Mineralisation*: 18.4mt @ 2.46% CuEq (1.05% Cu, 0.14% Co and 29g/t Ag);
    - *Cobalt Peripheral*: 17.4mt @ 1.39% CuEq (0.26% Cu, 0.09% Co and 20g/t Ag).
  - Over 95% of the total Vardy & Marley Mineral Resources is now in the Measured & Indicated classification (34.3mt).
  - Significant increase to Amy Mineral Resources for a total of 5.1mt @ 2.63% CuEq (incl. 1.25% Cu, 0.14% Co and 37g/t Ag; all Inferred) (previously 1.8mt).
- The updated Mineral Resource estimates are now set to feed into PFS mine scheduling, with significant potential life and economic upside flowing from the increased Vardy/Marley M&I component and targeted inclusion of Amy material (not included in the Scoping Study).
- Walford Creek PFS remains scheduled for completion in 2Q CY2020.
- R&D grant funds of A\$1.65 million received for research work already completed.

<sup>1</sup> Refer to ASX release 21 October 2019, “Walford Creek Scoping Study”, including for CuEq calculation methodology

<sup>2</sup> Refer to ASX release 17 December 2019, “Substantial Walford Creek Resource Upgrade”, including for CuEq calculation methodology

## Walford Creek Project (100% Aeon)

### Scoping Study outcomes

Aeon announced the key outcomes of a Scoping Study on the Walford Creek Project during the quarter.

The Scoping Study demonstrated that this high-grade polymetallic asset is amenable to development – both technically and economically. The Scoping Study incorporated only those Mineral Resources defined within the Vardy and Marley zones.

Scoping Study highlights include:

- Conventional open pit and underground mining of existing Vardy and Marley deposits delivering an initial operating life of approx. 11 years.
- 1.5Mtpa heap leach of lower-grade material combined with 2.0Mtpa flotation process plant to treat higher grade material. Commercially proven bio-leaching of cobalt concentrate.
- Final product streams of copper, lead and zinc concentrates plus cobalt-nickel sulphide and zinc sulphide.
- Total contained production of 146kt copper and 22kt cobalt (plus zinc, lead, silver and nickel). Total copper equivalent (CuEq) production of 446kt and average annual CuEq output of 42.5kt.
- Forecast LOM net revenue split of 33% copper, 39% cobalt, 9% zinc, 7% lead, 7% silver and 5% nickel (LOM avg price assumptions of US\$3.09/lb Cu, US\$23.31/lb Co and 0.725 A\$/US\$).
- Average cash operating cost of US\$1.52/lb CuEq and All-In-Sustaining-Cost (AISC) of US\$1.56/lb CuEq.
- Forecast pre-production capital expenditure of A\$323M, representing a globally attractive pre-production capital intensity of approximately US\$5,500/t of annual CuEq output.
- Ungeared, real, post-tax NPV8% of A\$431M. Post-tax internal rate of return (IRR) of 34% and payback of 3 years.
- Projected LOM and average annual positive net cashflow of A\$894M and A\$111M respectively.

The Pre-Feasibility Study (**PFS**) on the Walford Creek Project is underway with engineering firm Ausenco mandated to complete and is now targeted for completion in 2Q 2020. The PFS is set to incorporate the updated Walford Creek Mineral Resources (see below) inclusive of the Amy zone, which represents a further approximate 6km of strike length from Vardy/Marley (3.6km strike).

Refer to Aeon's ASX release of 21 October 2019 (*Walford Creek Project Highly Economic*) for full details of the Scoping Study (including the specific equation and assumptions utilised for calculation of CuEq volumes). In addition, please go to the link on the Aeon website for a 3D interactive Walford Creek Project display.

*Aeon confirms that all material assumptions underpinning the production target and forecast financial information within the Scoping Study continue to apply and have not materially changed.*

### Walford Creek resource upgrade

During the quarter, independent geological consultant, H&S Consultants Pty Ltd (**H&SC**), incorporated all results from the 2019 Walford Creek drilling campaign and completed updated Mineral Resource estimates for the Walford Creek Project. H&SC also undertook the previous Mineral Resource estimates for the Walford Creek Project in February 2019.

## Vardy & Marley zones

Total Vardy & Marley Mineral Resources now stand at 35.8mt @ 1.94% CuEq, extending over a strike extent of 3.6km. Of this total, over 95% of the Mineral Resource tonnage is classified as Measured and Indicated (34.3mt @ 1.94% CuEq).

### Copper Mineral Resource (18.4mt @ 2.46% CuEq)

The Vardy & Marley Copper Mineral Resource has increased to 18.4mt @ 1.05% Cu, 0.14% Co, 29g/t Ag, 0.90% Pb and 0.72% Zn (previously 17.6 Mt @ 1.14% Cu, 0.13% Co, 28 g/t Ag, 0.87% Pb and 0.74% Zn).

The Measured and Indicated (M&I) component has increased significantly to 17.5mt @ 1.05% Cu, 0.14% Co, 29g/t Ag, 0.90% Pb and 0.71% Zn. This comprises approximately 95% of the total Vardy & Marley Copper Mineral Resource tonnage.

**Table 1: Vardy/Marley Copper Mineral Resource (0.5% Cu cut-off)**

Category	Mt	Cu %	Pb %	Zn %	Ag g/t	Co %	CuEq %
Measured	6.2	1.15	0.89	0.86	26.5	0.15	2.62
Indicated	11.3	1.00	0.90	0.63	30.1	0.14	2.37
Inferred	0.9	1.04	1.06	0.80	35.2	0.14	2.49
<b>Total</b>	<b>18.4</b>	<b>1.05</b>	<b>0.90</b>	<b>0.72</b>	<b>29.1</b>	<b>0.14</b>	<b>2.46</b>

The new Vardy & Marley Copper Mineral Resource estimates represented a 4% increase in overall tonnes, inclusive of a 112% increase in Measured classification tonnage. The overall average copper grade has dropped slightly (~8%) but additional tonnes have been added (~800kt). This is mainly due to the change in the grade interpolation technique via dynamic interpolation along with the removal of the copper zone hard boundary, thus allowing for a more robust estimate.

### Cobalt Peripheral Mineral Resource (17.4mt @ 1.39% CuEq)

The Vardy & Marley Cobalt Peripheral Mineral Resource has decreased to 17.4mt @ 0.26% Cu, 0.09% Co, 20g/t Ag, 0.80% Pb and 1.01% Zn (previously 19.8 Mt @ 0.16% Cu, 0.10% Co, 22 g/t Ag, 0.84% Pb and 0.99% Zn).

The Measured and Indicated (M&I) component has increased significantly to 16.8mt @ 0.26% Cu, 0.09% Co, 20g/t Ag, 0.78% Pb and 1.02% Zn. This comprises approximately 96% of the total Vardy & Marley Cobalt Peripheral Mineral Resource tonnage.

**Table 2: Vardy/Marley Cobalt Peripheral Mineral Resource (600ppm Co cut-off on blocks that are outside of Copper)**

Category	Mt	Cu %	Pb %	Zn %	Ag g/t	Co %	CuEq %
Measured	5.9	0.24	0.75	1.14	18.9	0.10	1.44
Indicated	10.9	0.27	0.80	0.95	20.9	0.09	1.37
Inferred	0.7	0.25	1.06	0.82	23.1	0.09	1.38
<b>Total</b>	<b>17.4</b>	<b>0.26</b>	<b>0.80</b>	<b>1.01</b>	<b>20.3</b>	<b>0.09</b>	<b>1.39</b>

The new Vardy & Marley Cobalt Peripheral Mineral Resource estimates represent a 12% decrease in overall tonnes, but with a 144% increase in Measured classification tonnage. The cobalt grade has dropped slightly (~5%) and in combination with the lower overall tonnes, this has resulted in an approximate 20% reduction in contained cobalt metal.

As noted earlier, the differences are predominantly attributable to the change in the grade interpolation technique via dynamic interpolation along with the removal of the copper zone hard boundary (allowing for a more robust estimate). This has meant that while there has been a reduction in Cobalt Peripheral Mineral Resource tonnage, a sizeable amount of this material is now included in the Copper mineralisation (hence the increase in contained cobalt metal seen in the section above). Further, this has also resulted in an approximate 60% increase in the average copper grade of the Cobalt Peripheral Mineral Resource, leading to an approximate 45% increase in contained copper associated with the Cobalt Peripheral mineralisation.

### **Amy zone**

The Amy zone is located almost immediately to the west of the Vardy/Marley zones. Significant further drilling of the Amy zone in 2019 has delivered a substantial increase to the Copper Mineral Resource estimate for this zone. The updated estimate is defined in four discrete areas extending across a strike extent of approximately 5.7km.

Geological continuity has been demonstrated further westwards of Amy, as well as immediately to the east, providing opportunity to potentially add significant further resources with additional drilling.

### **Copper Mineral Resource (5.1mt @ 2.63% CuEq)**

The Amy Copper Mineral Resource has increased to 5.1mt at 1.25% Cu, 0.14% Co, 37g/t Ag, 1.35% Pb and 0.63% Zn (previously 1.8 Mt at 1.5% Cu, 0.15% Co, 32 g/t Ag, 0.75% Pb and 0.51% Zn).

All of the Amy Copper Lode Mineral Resource is classified as Inferred.

**Table 3: Amy Copper Mineral Resource (0.5% Cu cut-off)**

Category	Mt	Cu %	Pb %	Zn %	Ag g/t	Co %	CuEq %
Inferred	5.1	1.25	1.35	0.63	36.9	0.14	2.63

The H&SC report also provides an Exploration Target in relation to the Copper mineralisation not currently defined in the Amy Copper Lode Mineral Resource. This Exploration Target estimate is 2 to 4 mt @ 2.3% to 2.8% CuEq. See Table 4 for full details of the Exploration Target estimate.

The Amy Exploration Target is based on interpolated block grades generated from using a 200m search radius plus 50% of the remaining blocks within the mineral wireframe that still don't have an interpolated grade. All drill hole locations and sections underpinning the Exploration Target have been the subject of prior public reports.

**Table 4: Amy Copper Exploration Target**

Amy Copper Exploration Target Estimate							
Category	Mt	Cu %	Pb %	Zn %	Ag g/t	Co %	CuEq %
Exploration Target	2 - 4	1.1 - 1.5	1.1- 2.0	0.5 - 1.6	30 - 60	0.11 - 0.20	2.3 - 2.8

The potential quantity and grade referred to above is conceptual in nature, as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Aeon proposes to undertake further drilling within the Amy zone during the 2020 field program.

Refer to Aeon's ASX release of 17 December 2019 (*Substantial Walford Creek Resource Upgrade*) for full details of the Mineral Resource estimates update (including the specific equation and assumptions utilised for calculation of CuEq grades).

*Aeon confirms that it is not aware of any new information or data that materially affects the information included in that ASX release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.*

## **Pre-Feasibility Study progress**

The Walford Creek Project PFS remains targeted for completion in 2Q CY2020. The updated Walford Creek Mineral Resource estimates are currently being incorporated into the Pre-Feasibility Study (PFS) mine scheduling.

The Walford Creek Scoping Study (October 2019) outlined a nameplate 3.5Mtpa open-pit and underground mining operation delivering an initial forecast operating life of approximately 11 years (see Aeon ASX release dated 21 October 2019, *Walford Creek Scoping Study*). Aeon confirms that all the material assumptions underpinning the production target within that Scoping Study and the forecast financial information derived from the production target continue to apply and have not materially changed.

The updated Walford Creek Mineral Resource estimates offer significant potential mine life and economic upside, relative to the Scoping Study forecasts, as a function of both:

- The substantially increased Vardy/Marley M&I Mineral Resource tonnage (given the significantly increased higher confidence endowment from which a maiden Ore Reserve estimate can be estimated); and
- Targeted inclusion of the now considerably larger Amy Mineral Resource in the Walford Creek mine schedule for the first time (Amy was not included in the Scoping Study evaluation).

## **Basin Edge Project / Footprint JV**

Aeon is pleased to advise that it has earned a 100% interest in EPM 26316, located immediately east of its 100%-owned Walford Creek Project tenements. This was achieved through the drilling of two exploration holes under the Footprint Resources JV agreement.

Holes WFDH482 and WFDH483 intersected the prospective Mt Les formation from surface as well as an approximate 25m section of minor chalcopyrite (~0.1%) mineralisation in a stromatolitic carbon rich interval of the Walford dolomite. WFDH482 was drilled as a scout hole and was followed up by the deep stratigraphic hole WFDH483.

This initial program has exceeded expectations in terms of encountering the prospective Mount Les siltstone at shallow depths and intercepting a newly identified prospective mineralised horizon within the underlying Walford dolomite. The targeted chargeable anomaly at depth is now interpreted to be ground water in the Fish River Formation. The intensive hematite alteration in the Fish River Formation mirrors that seen at the Walford Creek deposits and is indicative of hydrothermal fluid flows.

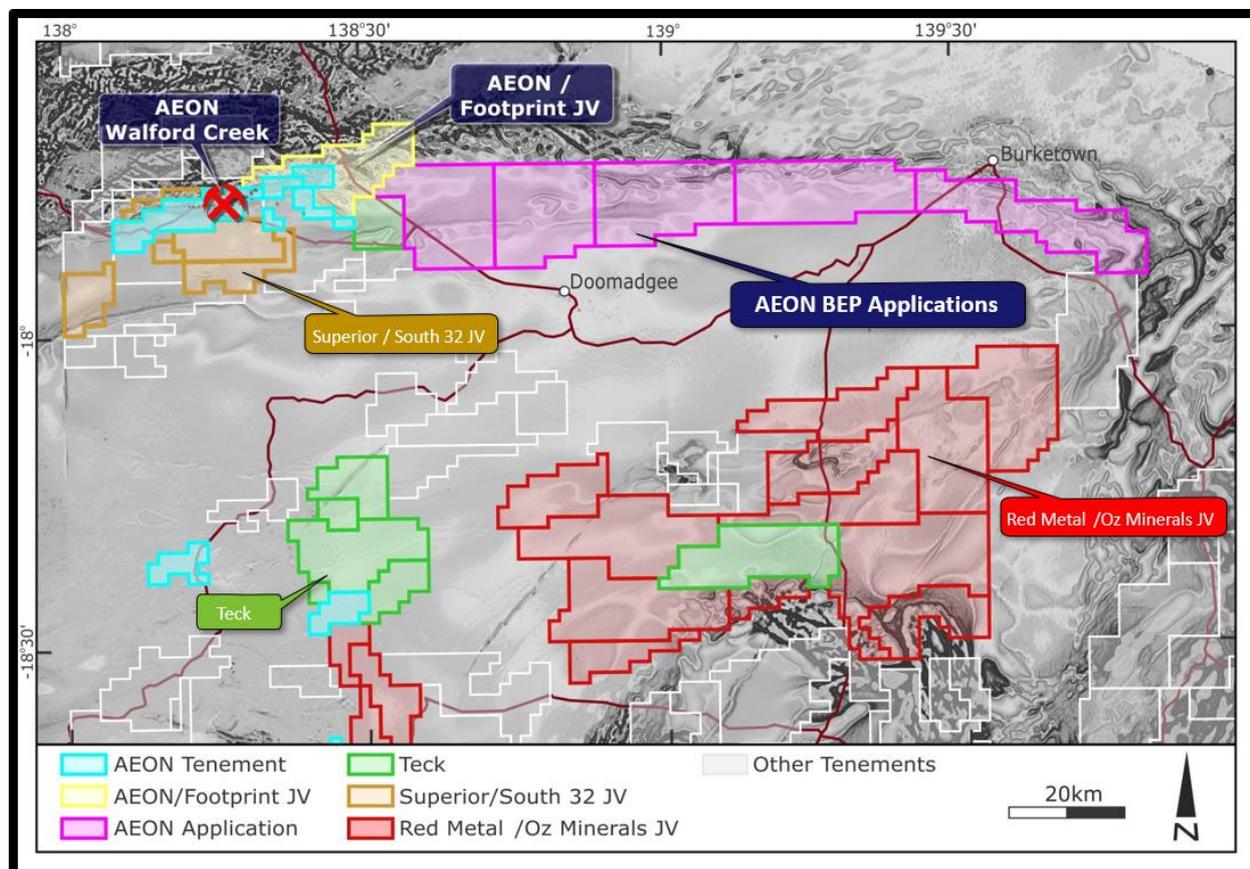
As previously announced, Aeon is adding a further 130km of potential strike extent to the east, starting immediately from the eastern boundary of the Walford Creek tenements, through a combination of the Footprint Resources JV earn-in and additional tenement applications.

These new tenement holdings, 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.

The identification of the prospective Mt Les formation under cover, and the identified presence of copper mineralisation approximately 14km to the east of Walford Creek, is a significant confirmation of this postulated model. The next step is to identify the mineralised structures under cover and target the mineralised horizons proximal to these structures. There is also planned to be testing of the prospective zone in the Walford dolomite within the Vardy and/or Marley zones of the Walford Creek Project.

The Basin Edge Project represents a low-cost opportunity for Aeon to leverage its understanding of the Walford Creek geology into potential basin-scale regional exploration upside. However, and as previously highlighted, Aeon’s core focus remains the rapid advancement of the world-class Walford Creek Project.

**Figure 1: Basin Edge Project tenure**



For further details of the Basin Edge Project tenure and strategy, and drill results, refer to Aeon ASX releases dated 4 July 2019 (*Basin Edge Project*) and 21 November 2019 (*Basin Edge Project Update*).

## Safety

There were no reported injuries at the Walford Creek Project during the quarter.

## Exploration & Evaluation Expenditure

During the quarter, the Company expended approximately A\$1.866 million on exploration and evaluation activities at the Walford Creek Project.

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

As at 31 December 2019, the Company had available cash of approximately A\$2.4 million.

## Corporate

On 25 November 2019, the Company held its 2019 Annual General Meeting. Eight of the 12 resolutions put to the meeting were approved. At the conclusion of the AGM, independent Director Stephen Lonergan ceased to be a Director of the Company.

On 20 December 2019, the Company received R&D grant funds of A\$1.65 million for research work already completed. This grant is associated with the selection, design and operation of metallurgical processes that seek to produce high grade concentrates consistently and at maximum recovery.

Aeon has received a number of indicative, non-binding and confidential funding proposals from various strategic and project financing counterparties with respect to both short and/or long term financing arrangements (**Indicative Funding Proposals**). While the Indicative Funding Proposals remain non-binding, and there is no certainty that funding will eventually be obtained under any of them, a number have the potential to significantly reduce Aeon's overall funding requirements with respect to the progression and planned development of the Walford Creek Project.

The Company plans to progress engagement with potential counterparties with respect to the Indicative Funding Proposals.

One of the Indicative Funding Proposals is an offer from Aeon's major shareholder and lender, OCP Asia Limited, to increase the limit on its existing loan facility (currently fully drawn and maturing in December 2020) (**OCP Facility**). Under this offer, the OCP Facility limit would increase by up to A\$4 million with all other material facility terms remaining unchanged.

This increased OCP Facility would be expected to provide sufficient funds to take Aeon through to completion of the current PFS on the Walford Creek Project, which is expected in 2Q 2020. It should be noted that Aeon's current intention is only to seek to agree, finalise and draw on the increased OCP Facility should the Company not progress to final documentation and execution on an appropriate and suitably attractive funding arrangement with a different counterparty(s), or if such an event occurs on a longer time frame than currently targeted.

## **Appendix 5B**

The Company's Appendix 5B cash report has also been released today.

**This ASX release has been authorised for and on behalf of the Aeon Board by:**

Hamish Collins, Managing Director and CEO

For more information, please contact:

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## ABOUT AEON METALS

Aeon Metals Limited (**Aeon**) is an Australian based mineral exploration and development company listed on the Australian Securities Exchange (ASX: AML). Aeon holds a 100% ownership interest in the Walford Creek Copper-Cobalt Project (**Walford Creek Project**) located in north-west Queensland, approximately 340km to the north north-west of Mount Isa. Aeon has completed a Scoping Study in October 2019 on the development of a 3.5Mtpa open pit and underground mining operation at the Walford Creek Project producing approximately 146kt copper and 22kt cobalt (plus zinc, lead, silver and nickel) for sale to global metal markets. This Scoping Study demonstrated that the Walford Creek Project represents a technically robust and highly economic mine development. A Pre-Feasibility Study (**PFS**) is targeted for completion in Q2 CY2020.

Aeon confirms that all material assumptions underpinning the production target and forecast financial information within the Scoping Study continue to apply and have not materially changed.

## APPENDIX 1 - TENEMENT HOLDINGS AS AT 31 DECEMBER 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%
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 18552	Walford Creek	100%
Aeon Walford Creek Limited	EPM 18769	Mount Isa West	100%
Aeon Walford Creek Limited	EPM 26906	Walford Creek	100%
Footprint Resources Pty Ltd	EPM 26316	Walford Creek	Farm In

## **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.