

**ASX Announcement** 

11 November 2021

# VARDY DEEPS EXPLORATION UPDATE

# Highlights

- Drilling at the Vardy Deeps target area, located beneath the Vardy Copper Cobalt deposit, identifies exciting new and highly prospective horizons within the Walford Dolomite.
- Low level copper anomalism, observed over two discrete horizons of 20 and 30 metres thickness and offset from the Fish River Fault, exhibits analogous signatures to that found higher up within the deposit.
- Fault hosted mineralisation observed beneath these prospective horizons, demonstrating potential structurally controlled copper mineralisation, further enhances the previously unrecognised prospectivity of the Walford Dolomite.
- Base of the Walford Dolomite unit in the Vardy Deeps area remains to be tested.
- These results enhance the prospectivity of other targets along the Fish River Fault, including to the East of Vardy where the Walford Dolomite is outcropping.

Aeon Metals Limited (ASX: AML) (**Aeon** or the **Company**) is pleased to provide an update on the progress of the Vardy Deeps exploration activities being undertaken on its Walford Creek Copper-Cobalt Project (**Walford Creek Project**) in north-west Queensland.

The 2021 drilling campaign is primarily designed to collect additional representative metallurgical samples to support the revised processing flowsheet (see ASX release dated 30 June 2021, *Walford Creek Revised Scoping Study Results*) for utilisation within the current Pre-Feasibility Study (**PFS**). The initial results for the Vardy zone were reported in ASX release dated 3 November 2021, *Vardy Drilling Update*.

In conjunction with the drilling work program, high resolution gravity and magnetic geophysical surveys were also conducted over the Walford Creek tenement package, which highlighted a number of new prospective target areas (see ASX release dated 9 August 2021, *New Drill Targets at Walford Creek*). The Vardy Deeps target was considered a high priority and was selected for immediate testing once a second drill rig was secured. Two exploratory holes into this target have now been completed and the results are reported below.

# Vardy Deeps Target Area

The Vardy Deeps target area was defined primarily from a geophysical anomaly using high resolution gravity data collected in Q2 2021. A dense body is modelled sitting beneath the Vardy mineral resource within the Walford Dolomite. This feature cannot be explained by the currently known stratigraphy in the area. A previous drill hole that pierced the upper margins of the Walford Dolomite (WFDH394 reported in ASX release dated 21 November 2018, *Marley Resource Drilling – Mineralisation Continuity*) returned 10m at 5% copper in the form of "clean" chalcopyrite. In the ASX release, the drill section in Figure 10 incorrectly showed this intersection occurring at the bottom of the Py3 zone when it is actually within the upper portion of the Walford Dolomite. This chalcopyrite

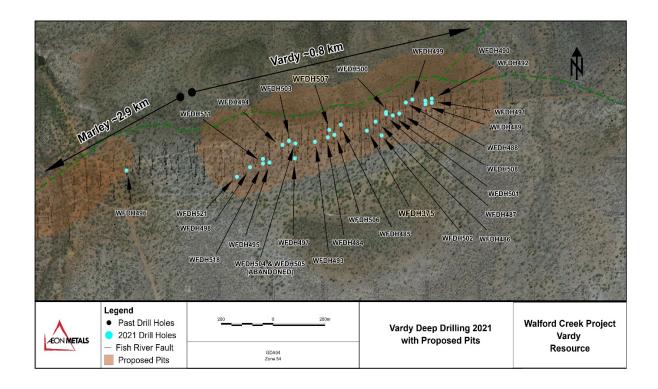
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intersection demonstrates that the Walford Dolomite can be a host of high-grade copper mineralisation.

Two exploration holes have been completed recently targeting the identified Vardy Deeps target (see Figure 1):

- Drillhole WFDH375 was a 2018 completed hole that was used as a pre-collar and extended to 557.2m [down-hole] depth.
- Drillhole WFDH507 is a new hole and drilled to 807.2m [down-hole] depth.



#### Figure 1: Location of Vardy Deep drillholes and hole WFDH506 that is on section

Both holes intercepted two discrete prospective stratigraphic horizons within the Walford Dolomite that can be correlated between holes. These horizons host hydrothermal alteration textures containing minor chalcopyrite mineralisation (see Figure 2) that are now interpreted as exciting new prospective horizons within the Walford Dolomite itself.





Figure 2: Drill core from WFDH375 378.7 metres showing chalcopyrite as matrix infill in the Walford Dolomite (sample is roughly 40m off the Fish River Fault)

The copper values observed (see Table 1) were at levels up to 1m @ 0.66% Cu which is highly anomalous relative to background values observed within the Walford Dolomite. Some corresponding anomalous cobalt is also noted within these zones ranging between 30ppm and 150ppm. These broad anomalous intersections are interpreted to be between 30 and 50 metres from the Fish River Fault and are considered to be a vector to the targeting of potential higher grade mineralisation within the same stratigraphic units closer to the main fault. The zones are interpreted to be strata controlled and correlate between WFDH375 and WFDH507 (~150m). This makes it a priority exploration for high-grade clean copper mineralisation.

11-1- NI-	Franklaur		AZI	Dips	Inter	sect	From	То	Cu	Co	Pb	Zn	Ni	Ag	CuEq
Hole No.	Easting	Northing	degrees	degrees	n	ı	m	m	%	%	%	%	ppm	g/t	%
WFDH507	213408	8031918	180	-70	6:	1	24.0	85.0	0.17	0.09	0.10	0.56	397	18	0.87
					And	9	188.0	197.0	0.22	0.05	1.52	0.42	189	27	0.74
					& Peripheral Zone	35	430.0	465.0	0.01	0.00	0.00	0.01	16	1	0.03
					& Peripheral Zone	31	521.0	552.0	0.01	0.00	0.00	0.00	4	1	0.02
					& FRF Zone	11	718.0	729.0	0.53	0.00	0.02	0.00	21	3	0.54
					& FRF Zone	11	741.0	752.0	0.58	0.00	0.02	0.00	21	3	0.59
WFDH375	213555	8031915	165	-80	Peripheral Zones	31	139.0	170.0	0.02	0.01	0.08	0.17	44	3	0.12
					& Peripheral Zone	38	378.0	416.0	0.36	0.00	0.01	0.05	18	1	0.07
					& Peripheral Zone	33	445.0	478.0	0.04	0.00	0.00	0.00	3	0	0.05

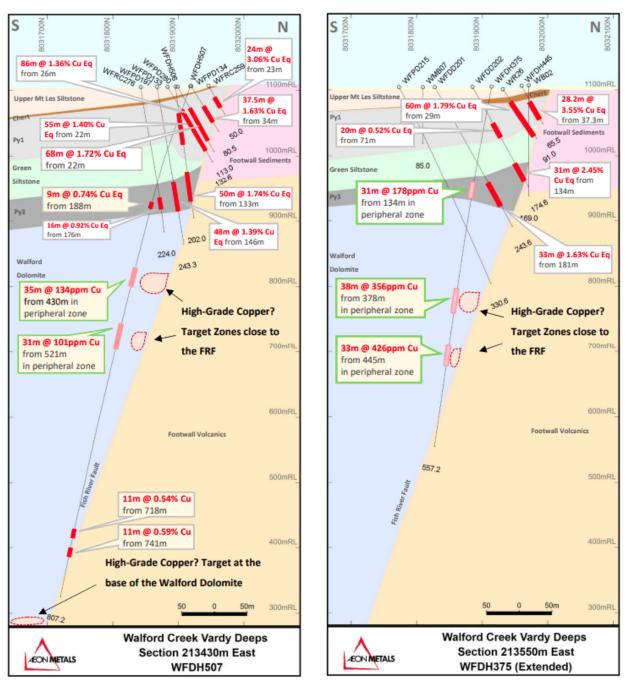
#### Table 1: Anomalous intercepts

Elsewhere higher up in the system (e.g. Py1 and Py3 horizons), the mineralisation adjacent to the fault occurs at the highest tenor and this then decreases with increasing distance from the fault. Given the importance of the proximity to the fault for mineralisation in Py1 and Py3, it is now proposed that further target areas exist where these newly identified, weakly mineralised horizons in the Walford Dolomite approach the main fault (see Figures 3 and 4). Crucially, the growing number of chalcopyrite intercepts now known within the Walford Dolomite suggest that this sequence, previously considered to be uninteresting, is potentially another important prospective host for mineralisation.

Beneath these peripheral mineralised zones within the prospective horizons identified, drill hole WFDH507 also intercepted anomalous copper within the Fish River Fault zone demonstrating



potential for structurally controlled copper mineralisation and this further enhances the previously unrecognised prospectivity of the Walford Dolomite.



Figures 3 and 4: Cross sections 213430mE and 213550mE showing drill holes WFDH507 and WFDH375. Note that copper grade in the peripheral zones increases towards the Fish River Fault between sections.

Both holes failed to successfully transect the Walford Dolomite unit in its entirety. In both instances, the holes intercepted the steeply dipping Fish River Fault prior to reaching the base of the Walford Dolomite. The thickness of the Walford Dolomite remains unknown and therefore the original primary target area conceptually modelled at its base remains untested.



#### Aeon Managing Director and CEO, Dr Fred Hess, commented:

"With the two drill holes completed to date at Vardy Deeps, we have not yet tested the base of the Walford Dolomite unit which was both our primary and priority exploration target area. Serendipitously however, we have opened up a whole new potential target area for prospective mineralisation within the Walford Dolomite.

"The signature of the low level copper mineralisation encountered in both holes suggests a potential extension to the sequence of mineralised horizons present adjacent to the Fish River Fault. Previously thought to be uninteresting, the Walford Dolomite unit is now being reassessed with all past anomalous intersections being reinterpreted.

*"While the current drilling campaign is nearing its end due to the onset of the wet season, the new target areas generated from the high resolution geophysical survey earlier in the year, combined with these unexpected but exciting results, offer significant optimism for a 2022 drilling campaign."* 

#### **Next Steps**

Drilling is ongoing at the Walford Creek Project, with the primary objective of finalising metallurgical sample collection at the Marley deposit before the proper onset of the west season.

Downhole electromagnetic surveys are currently underway at the Vardy Deeps prospect. The objective is to identify the presence or otherwise of a conductive body between the drill hole and fault, specifically at the zones of interest. Follow up drilling will be planned based on the results.

#### Reporting notes

\* Results are being reported in recovered copper equivalent (**CuEq**) to account for the revised processing flowsheet as published in the Walford Creek Project Scoping Study (see ASX release dated 30 June 2021). Recovered CuEq intercepts have been calculated using the recovery and metal price assumptions utilised in the Scoping Study (see Table 1) and according to the following equation:

**CuEq =** Copper grade \* copper recovery +

Zinc grade \* zinc recovery \* zinc price / copper price +

Cobalt grade \* cobalt recovery \* cobalt price / copper price +

Silver grade \* silver recovery \* silver price / copper price +

Nickel grade \* nickel recovery \* nickel price / copper price

Metal	USD/lb	Comments	Recovery assumptions after processing of bulk composite
Copper	4.54		95%
Lead	1.00	Assumption not recovered	0%
Zinc	1.36		92%
Cobalt	20.42		79%
Nickel	8.16		76%
Silver	27.00		82%

 Table 2: Copper equivalent calculation parameters



#### This ASX release has been authorised by the Aeon Board:

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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.

A Pre-Feasibility Study on the Walford Creek Project is targeted for completion in Q1 2022.

### **Appendix 1: Competent Person's Statement**

The information in this report that relates to Exploration Results for the Walford Creek Deposit is based on information compiled Mr Andrew Moorhouse 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 Moorhouse is a full-time employee of AEON Metals Limited and consents to the inclusion in the presentation of the Exploration Targets and Exploration Results in the form and context in which they appear.



# Appendix 2: JORC Code, 2012 Edition – Table 1 Walford Creek

#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>WMC: 1986-1994 completed diamond core and RC drilling on nominal 400 x 40m grid spacing. The holes were generally drilled vertically to appropriately target the stratabound Pb-Zn mineralisation. Sampling procedures were in line with industry standards of the day (as documented in historic reports); all RC drilling was sampled at 1m intervals and drill core was split/sawn into approximately 1m half-core samples. All samples were analysed in-house by Atomic Absorption Spectrometry.</li> <li>Copper Strike: 2004-2005 RC drilling was completed to infill the existing grid by WMC. RC drilling was used to obtain continuous 1m samples. Dry samples were split at the rig and wet samples speared. Approximately 2kg samples were weighed, dried, crushed and pulverised at a commercial laboratory for analysis by four-acid digest with an ICP finish.</li> <li>Aston to Aeon: 2010-2018 infill and extension diamond drilling with some RC precollars; good quality predominantly HQ core was obtained from which 1m sawn half-core samples were collected and weighed, dried, crushed and pulverised at a commercial laboratory for analysis by four-acid laboratory for analysis by four-acid digest with an ICP finish. Drill core and RC sample recoveries were recorded in the database. All above grade (termed Ore Grade) were assayed as such via OG62 four-acid digest by ALS. Drill core sample recoveries were recorded in the database. 2016 saw metallurgical samples taken using quarter cut HQ core and limited PQ.</li> <li>Aeon 2019 and 2021: ALS used and is employing a 4-acid digest with ICP finish and ore grade via four-acid digest (termed 4AH/OE by Intertek Genalysis).</li> <li>Aeon 2019 and 2021: ALS used and is employing a 4-acid digest with ICP finish and ore grade via four-acid digest (termed 4AH/OE by Intertek Genalysis).</li> <li>Aeon 2019 and 2021: ALS used and is employing a 4-acid digest with ICP finish and ore grade via four-acid digest. Check analysis in 2019 is being conducted by Genalysis.</li> <li>Wh</li></ul>

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Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>1986 to 1994 WMC: 45 Diamond holes 12,735m &amp; 49 RC holes 3,678m; NQ &amp; minor BQ Diamond drilling and RC, no mention of core orientation in any historic WMC report.</li> <li>2004 to 2005 Copper Strike: 30 Reverse Circulation ("RC") holes 3,162m; RC drilling bit type/size not reported by CSE.</li> <li>2010 to 2012 Aston Metals: 92 Diamond holes 14,929m; HQ Triple Tube Diamond drilling with some RC pre-collars. Core oriented, where possible, by Reflex ACT tool and structural data recorded in the database.</li> <li>2014 Aeon Metals Limited: 19 RC, RCDD and DD (Diamond) holes completed for 9021m. HQ Triple Tube Diamond drilling with some RC pre-collars. Core oriented, where possible, by Reflex ACT 111 tool and structural data recorded in the database.</li> <li>2016 to 2019 Aeon Metals Limited;</li> <li>Reverse Circulation (5.5-inch hammer bit) and Diamond Drilling (HQ Triple tube and minor PQ). Core oriented, where possible, by Reflex ACT 111 tool and structural data recorded in the database.</li> <li>2016 = 4030m - 28 holes</li> <li>2017 = 6865.65m - 48 holes</li> <li>2018 = 36032m - 147 holes</li> <li>2019 = 13481.15m - 60 holes</li> <li>2021 Aeon Metals Limited (as at 17/10/2021) total 6355 metres for 40 holes consisting of; 5.5-Inch RC pre-collar = 1503m PQ3 = 1638 HQ3 = 3169</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>WMC: No known written record (however, any core loss intervals were recorded graphically in geological logs).</li> <li>Copper Strike: No written record. Copper strike have noted some areas of poor sample recovery through mineralised zones due to high water pressure, but noted that grades were comparable to WMC diamond drilling and therefore assumed any bias based on drilling technique and / or sample type was low.</li> <li>Aston and Aeon Metals: HQ Triple Tube drilling to improve recovery. Generally, &gt;90%; lower recoveries can in some cases be associated with higher mineral grades attributed to hydrothermal brecciation &amp; dissolution in the Dolomite Unit rather than drilling or sampling practice.</li> <li>2014 recoveries are considered to be better than 2012 recoveries.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>2016 recoveries are considered the same or better than 2014. Shallow holes close to the fault generally have poorer recoveries.</li> <li>Recoveries of samples in the 2017, 2018, 2019 and 2021 have been similar and are considered good with greater than 90% in 90% of all drilling. There is a minor inverse relationship between sample recovery and grade, this however is due to brecciation and dissolution rather than sample bias.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>WMC: Detailed hard-copy lithological logging of all holes transcribed by AML into an Access Database with a full set of logging codes acquired from BHP Billiton. Core photographs were taken but could not be recovered from the data archives. A few core photographs were made available to AML as scans.</li> <li>Copper Strike: Digital logging of all holes loaded into AML's Access database with a full set of logging codes acquired from Copper Strike. No chip tray photographs were made available.</li> <li>Aston and Aeon: Detailed digital geological and geotechnical logging of all holes with a full set of logging codes transcribed into an Access database; full set of core photographs.</li> <li>All logging has been converted to quantitative codes in the Access database.</li> <li>Some geotechnical logging of diamond drill core undertaken in both 2018 and again in 2019 for geotechnical assessment for integration into mining studies.</li> <li>All relevant intersections were logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance</li> </ul>	<ul> <li>WMC: Split/sawn half core under geological control and no record for RC; 1m RC samples and half core samples of typically 1m, but as small as 0.25m sent for in-house lab assay.</li> <li>Copper Strike: Dry RC samples were riffle split and wet samples speared; 1m samples (of approximately 2kg) sent to commercial laboratory with appropriate sample prep process.</li> <li>Aston and Aeon: Company procedures for core handling documented in a flow sheet; sawn half core under geological control; 1m samples sent to commercial laboratory with appropriate sample prep. Company procedure for RC sample handling documented in flow-sheet; bulk 1m samples in most cases rotary split from rig with only some riffle split; sample dried, crushed and pulverised to appropriate levels; use of field duplicates and quarter core checks were completed and indicated comparable results with the original samples.</li> <li>In 2016 PQ and HQ core were collected for metallurgical samples. Sawn half core was submitted for metallurgical testing, from mineralised intervals, with the remaining half core sawn and quarter section samples sent for multi-element analysis at ALS.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Ongoing gathering of metallurgical sample has continued in 2017, 2018, 2019 and 2021 where mineralised intercepts encountered.</li> <li>All sampling methods and sample sizes are deemed appropriate.</li> <li>Sampling in 2017, 2018, 2019 and 2021 conducted in the same manner as previous years.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>WMC: In-house analysis by Atomic Absorption Spectrometry (digest recorded as PBKRS) as cited in annual reports of the day by WMC. The relevant QA/QC was not reported and the drill core is no longer available.</li> <li>Copper Strike: Appropriate analytical method using a 4-acid digest with ICP finish with ore grade analysis for Cu, Pb, Zn &amp; Ag. Assaying was carried out by ALS, an accredited laboratory. CSE did not make use of any standards or run duplicate samples for QA/QC. Aston metals drilled 4 HQ Triple Tube diamond core twin holes with comparable results.</li> <li>Aston and Aeon pre-2017: analytical procedure documented as a flow-sheet; Appropriate analytical method using a 4-acid digest with ICP finish. Ore grade analysis for Cu, Pb, Zn &amp; Ag by OG62 method. Assaying was carried out by ALS, an accredited laboratory. Extensive QA/QC program with standards, blanks, laboratory duplicates &amp; secondary lab checks. Acceptable outcomes.</li> <li>Aeon 2017 and 2018: analytical procedure documented as a flow-sheet; Appropriate analytical method using a 4-acid digest with ICP finish. Ore grade analysis, where appropriate, for Cu, Pb, Zn, Ag, S and as by 4AH/OE. Assaying was carried out by Intertek Genalysis in 2018, an accredited laboratory.</li> <li>2019 and 2021 ALS acting as main assaying laboratory. Genalysis doing checks.</li> <li>Extensive QA/QC cas above.</li> <li>All assay methods for both Aston and Aeon were appropriate at the time of undertaking.</li> <li>Aeon has continued to undertake QA/QC including undertaking check analysis at a secondary laboratory.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>WMC: Hardcopy sampling and assay data has been compared with recent drilling work by Aston and Aeon. Aeon considers the data reliability to be reasonable.</li> <li>Copper Strike: Aston twinned 4 CSE holes to assess grade repeatability and continuity; results are comparable. All samples were submitted to an accredited laboratory, ALS. 1 hole was removed from the database because the geological logging and assay results appeared significantly at odds with several surrounding holes.</li> <li>Aston: Site visit to review core confirms mineral intercepts; Twinned holes (4) to test RC</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>drilling by Copper Strike; results are comparable. Aeon have core handling procedures as flow-sheets.</li> <li>Aeon: Site visit by H&amp;SC to review core confirms mineral intercepts;</li> <li>Aeon using same core handling procedures, including similar data entry and logging as previous with same codes.</li> <li>Aeon database managed by Elemental Exploration Pty Ltd using GEOBANK with all final data stored off site.</li> <li>The spacing of drill holes is considered appropriate with closer spacing and in some cases crossing holes undertaken in 2018, 2019 and 2021 confirming grades in previous holes.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>WMC: Survey pickup of collar locations by EDM in 1992 and tied to the datum grid point at drillhole WFDD1. The precision of pickups was ±100mm with respect to the datum on average. Downhole survey method not recorded; database contains azimuth and dip readings every 30-50m.</li> <li>Copper Strike: Drill hole location and orientation data determined by CSE staff. Collars were buried and therefore validation by subsequent Companies was not possible. Downhole survey methods were not recorded; database contains azimuth and dip readings based on collar and end of hole measurement.</li> <li>Aston: DGPS on all AML holes in MGA94 Zone 54 grid projection by MH Lodewyk Surveyors, Mount Isa. AML also had WMC drill hole collar locations validated by DGPS with good accuracy. Down hole surveys were taken every 30m by REFLEX, EZI-SHOT.</li> <li>A detailed Digital Elevation Model (DEM) was generated by David McInnes, consulting geophysicist, as part of the process of developing the 2010 3D geological model. The DEM was generated using a combination of data from the drillhole collars (DGPS), the WMC Gravity survey (with a 3cm accuracy), with variable data point spacing of 100x100m – 500x500m, and high-resolution satellite data with an estimated 80m accuracy.</li> <li>Aeon: DGPS on all previous Aeon drill holes in MGA94 Zone 54 grid projection by MH Lodewyk Surveyors, Mount Isa in September 2014.</li> <li>2016, 2017, 2018, 2019 and part of 2021 holes have been picked up by DGPS by D Ericson at Diverse Surveyors, Mt Isa – remaining 2021 holes will be surveyed at the end of the campaign.</li> <li>Down hole surveys were generally taken every 30m by REFLEX (ACT 111) EZI-SHOT or as ground conditions permitted.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>2018, Aeon commissioned ANC to carry out a Digital Terrain Model (DTM) over the Vardy and Marley deposits.</li> <li>2018 Seismic Survey, shot points and geophone locations were surveyed by RPS using GDA 94, MGA Zone 55.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drillhole section spacing is 25m to 50m in the eastern section of the deposit becoming 100m or greater in the west. On section spacing is approximately between 20m to 80m. 100m spacing is appropriate for geological continuity, 50m spacing allows for reasonable assessment of grade continuity. 25m by 20m can lead to measured status depending on continuity of both geology and grade.</li> <li>Some holes have encroached closer than the nominal 25m by 20m due to hole deviation and also the necessity to relocate holes around geographical and or cultural features and or vegetation.</li> <li>Very limited sample compositing undertaken.</li> <li>2018 Seismic, shot point and receiver spacing of 8m on a 160-channel nominal spread were the selected parameters based on geological variables.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drilling generally achieved a high angle of intercept with the stratabound mineralisation but local variation due to folding has been logged.</li> <li>Any mineralisation related directly to structures with the same strike and dip of the Fish River Fault, has been intersected at a moderate angle.</li> <li>A broad alteration zone (with variable mineralisation) associated with both the stratabound mineral and the mineral proximal to the Fish River Fault has been intersected at reasonable angles.</li> <li>Drilling orientations are considered appropriate with no obvious bias. Holes have been steepened recent drilling of the deeper Py3 but the angle of intercept is still considered appropriate.</li> <li>2018 Seismic, 5 lines were orientated north-south (perpendicular to structure) and 1 line east-west (along strike).</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>WMC: All assaying in-house. No documentation available on sample security.</li> <li>Copper Strike: All assaying completed by ALS Townsville. No documentation available on sample security.</li> <li>Aston and Aeon: RC chip samples in calico bags are sealed in polyweave bags. Drillcore is contained in lidded core trays, strapped down and transported by a dedicated truck to</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Mount Isa. The core is cut and sampled by company employees in the Mount Isa core yard and sent directly to ALS Mount Isa where assaying is completed. After analysis all samples are returned to Isa, stored in a lock up shed and digitally archived. Core is stored in Mount Isa in a lock up shed. Previously sections of massive sulphide were kept in secure cool storage. Aeon – recent core crush of -9mm has been kept in cryovac bags with a nitrogen flush prior to sealing. This is aimed at eliminating the requirement to use cold storage for the core. The remaining core is stacked on pallets and then plastic wrapped prior to storage in a covered shed out of the weather. Visual inspection of drill core continues to show that assay grades match mineral assay distribution.</li> <li>2016, 2017, 2018, 2019 and 2021 Metallurgical samples comprised sawn quarter/half core completed at an appropriate facility in Mt Isa by Aeon personnel. Core was then bagged and cryovac using nitrogen to expel oxygen and then protected in Mt Isa prior to use in test work at other secure sites including at ALS.</li> <li>All drillcore in core trays is wrapped in plastic and strapped to pallets on site at Walford and before transport to Mt Isa by either Aeon personnel in appropriate vehicles or via the local transport company from Doomadgee. This transport of core is considered satisfactory.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>WMC: Data transcribed from historic reports and subsequently validated by Aston with no material inconsistencies evident.</li> <li>Copper Strike: Supplied digital database checked by Aston against hard copy with no material discrepancies found.</li> <li>Aston: All data checked and validated prior to loading into the internal database by Aston geologists and external database managers. As part of the process of developing the geological model Aston reviewed all the recent and historic data and consider it suitable for the purposes of resource estimation. A QA/QC audit by ALS found no major discrepancies in the assay data.</li> <li>Aeon – all data now being received has undergone the same validation as used previously by Aston.</li> <li>A substantial QA/QC review has been completed by H&amp;S Consultants as part of the resource estimate undertaken previously.</li> <li>QA/QC work continues to be undertaken as previous with check analysis undertaken a different laboratory.</li> </ul>



# **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Walford Creek is located wholly within EPM 14220. The EPM is located 65km west-northwest of Doomadgee township and 340km north-northwest of Mount Isa.</li> <li>Following a transfer of title (dated 12 March 2013) EPM 14220 is held 100% by Aeon Walford Creek Limited formerly Aston Metals (Qld) Limited and the previous Joint Venture Agreements no longer apply. The tenement currently consists of 41 sub-blocks. The tenement is a granted Exploration Permit for Minerals and no known impediments exist.</li> <li>As it currently stands, no Native Title claim is in existence over EPM 14220, however AML continue to operate under the premises of the previous agreements negotiated with the Carpentaria Land Council Aboriginal Corporation "CLCAC" representing the Waanyi and Gangalidda-Garawa peoples and signed prior to commencement of exploration.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Numerous companies have explored within the tenement area, largely concentrating on the discovery of a significant stratabound lead-zinc system.</li> <li>More recently, companies have been focused on targeting copper mineralisation in the hanging wall of the Fish River Fault.</li> <li>All exploration is considered to have been completed to a reasonable standard by experienced companies in a professional manner. Most exploration work has been appropriate but there are minor issues on historic documentation.</li> <li>Previous exploration of the Walford Creek Prospect is summarised below:</li> </ul>
		<ul> <li>1984-1996 WMC <ul> <li>Re-evaluation of the Walford Creek area resulting in a major exploration program targeting Pb-Zn mineralisation near the Fish River Fault:</li> <li>Systematic grid-based mapping, rock chip and soil sampling.</li> <li>Detailed Tempest EM and aeromagnetic survey; gravity survey, 600-line km of SIROTEM.</li> <li>45 diamond and 49 percussion holes totalling approximately 16,500m of drilling on 400 and 800 m spaced drill hole fences.</li> <li>Isolated higher grade Pb-Zn-Cu-Ag intersections but no coherent economic Pb-Zn resource.</li> <li>Brief JV with MIMEX from 1995-1996. MIMEX completed CSAMT, EM and IP over 9 conceptual targets but no drilling.</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>2004-2006 Copper Strike <ul> <li>Exploration program targeting copper mineralisation at the Walford Creek Prospect in and along the Fish River Fault:</li> <li>A small RC drilling program was commenced in 2004 but curtailed prematurely due to the 2004-2005 wet season.</li> <li>A significant RC drill program was completed during 2005.</li> <li>30 holes were drilled for a total of 3,162m, of which 60.7m was diamond cored.</li> <li>Estimation of an Inferred Mineral Resource for the Walford Creek Project of 6.5 million tonnes at 0.6% Cu, 1.6% Pb, 2.1% Zn, 25 g/t Ag and 0.07% Co.</li> </ul> </li> </ul>
		2010 to 2012 Aston Metals Limited
		<ul> <li>Exploration undertaken by Aston followed on from the targeting approach adopted by Copper Strike in drilling along the Fish River Fault to test both the SEDEX lens and the associated copper/cobalt mineralisation close to the fault.</li> <li>Aston Metals drilled a total of 92 Diamond holes 14,929m; HQ Triple Tube Diamond drilling with some RC pre-collars.</li> <li>The 2012 Indicated and Inferred Resources of 48.3 million tonnes at 0.39% Cu, 0.83% Pb, 0.88% Zn, 20.4 g/t Ag and 731 ppm Co.</li> </ul>
		All subsequent work since June 2014 has been undertaken by Aeon Metals.
Geology	Deposit type, geological setting, and style of mineralisation.	<ul> <li>At the Walford Creek Prospect structurally controlled, vein/breccia hosted or replacement Cu ± Co mineralisation, with minor Pb-Zn-Ag and stratabound, diagenetic Pb-Zn-Ag ± Cu mineralisation, are hosted in dolomitic and argillaceous sediments of the Paleoproterozoic Fickling Group, forming part of the Lawn Hill Platform stratigraphic sequence, along the east- west to east-northeast trending, steeply south-dipping Fish River Fault.</li> <li>The mineralisation typically occurs as early diagenetic sphalerite-galena-(chalcopyrite) to late epigenetic chalcopyrite-(galena-sphalerite) associated with three stacked massive pyrite lenses and talus, hydrothermal and tectonic breccias in the hanging wall of the Fish River Fault.</li> <li>Mineralisation shows affinities to both early sediment-hosted SEDEX-type and late Mississippi Valley-type mineralisation styles.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>The wide diversity of mineralisation styles reflects multiple events in a long-lived re-activated structural setting that originated as a growth fault.</li> <li>Further interpretation of the geological model is ongoing and views will reflect the geological teams assessment as both the database grows in size and as the results are interpreted.</li> <li>Recent re-interpretation also shows strong analogies to some Zambian style sediment hosted copper deposits where elevated copper in association with high cobalt values is often a characteristic.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Exploration results have not previously been reported in the public domain as Aston Metals, the previous company, was privately listed.</li> <li>Information on the pre-2016 drill holes is included in the 2015 Resource Estimate Report.</li> <li>Summary Information pertaining to the completed 2018 drilling holes is contained in previous ASX releases.</li> <li>Summary Information pertaining to the completed 2019 drilling is contained in the body of the relevant 2019 ASX releases.</li> <li>Summary Information pertaining to the completed 2021 drilling is contained in the body of the relevant 2019 ASX releases.</li> <li>Summary Information pertaining to the completed 2021 drilling is contained in the body of the relevant 2021 ASX releases.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material</li> </ul>	<ul> <li>Exploration results have not previously been reported in the public domain as Aston Metals, the previous company, was privately listed.</li> <li>Aeon has not undertaken any cutting of grades as it currently believes that all the grades received are an accurate reflection of the sampled interval.</li> <li>Aeon has maintained realistic intervals of dilution when stating mineralised intercepts,</li> </ul>



Criteria	JORC Code explanation	Commentary						
	<ul> <li>and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	u • C ci	<ul> <li>however further refinement of what are considered realistic mining width understood following further resource calculations.</li> <li>Copper equivalent (CuEq) values have been used for 2021 drill hole results, reflective currently published processing flow sheet as per the 2021 scoping study 30/06/2021). The metal prices and assumed recovery parameters used for this are an assumed recovery parameters.</li> </ul>					
			Metal Prices	USD/lb	Comments	Recovery assumptions after processing of bulk composite		
			Copper	4.54		95%		
			Lead	1.0	Assumption not recovered	0%		
			Zinc	1.36		92%		
			Cobalt	20.42		79%		
			Nickel	8.16		76%		
			Silver	27		82%		
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Exploration results have not previously been reported in the public domain as Aston Metals, the previous company, was privately listed.</li> <li>Drill hole angle relative to mineralisation has been a compromise to accommodate the flatlying stratabound massive sulphide bodies with associated replacement breccias and the steeper dipping epigenetic mineralisation proximal to the Fish River Fault. Generally, the stratabound intercepts are closer to true width whereas epigenetic and/or overprinting mineralisation intercepts can be apparent widths depending on drill angle. This is modelled in the wireframes for the resource work.</li> </ul>						
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	21 • A • A th • 21	<ul> <li>2013 Resource Estimation report by H&amp;SC for all work prior to 2014.</li> <li>Appropriate maps and sections have been provided for the 2016 and 2017 work to date.</li> <li>Appropriate sections have been included for some of the significant intercepts recorded from the 2016, 2017, 2018 and 2019 drilling.</li> </ul>					



Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Exploration results have not previously been reported in the public domain by Aston as the previous company was privately listed.</li> <li>All results reported on by Aeon are considered to be accurate and reflective of the mineralised system being drill tested.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	<ul> <li>Aeon believes that the results and data provided give a meaning and material reflection of the geological lithologies and structure being tested at Walford Creek.</li> <li>Metallurgical test work both undertaken continues to show that acceptable levels of mineralisation for all the important elements can be satisfactorily extracted from Walford Creek mineralisation.</li> <li>More definitive metallurgical test work is ongoing.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Aeon's future exploration will focus on upgrading and expanding upon the current Inferred and Indicated Resource Estimates along with exploring the broader prospective region for similar mineralisation style as at the Walford Creek Prospect, through further drilling.</li> </ul>