

**ASX ANNOUNCEMENT**

**28 June 2019**

**MAIDEN DRILL CAMPAIGN TO COMMENCE AT CUE COPPER PROJECT**

**Highlights**

- **Cyprium Metals (formerly ARC Exploration) has submitted its initial Programme of Work to the WA Department of Mines for drilling at the Cue Copper Project with approval expected in early July 2019**
- **Hollandaire Resource extension drilling to commence in July 2019 with a Phase 1 Programme of over 4,000 metres of Reverse Circulation drilling**
- **Hollandaire metallurgical drilling to commence in July 2019 with a 330 metre Diamond Drilling Programme**
- **ARC Exploration name changed to Cyprium Metals**

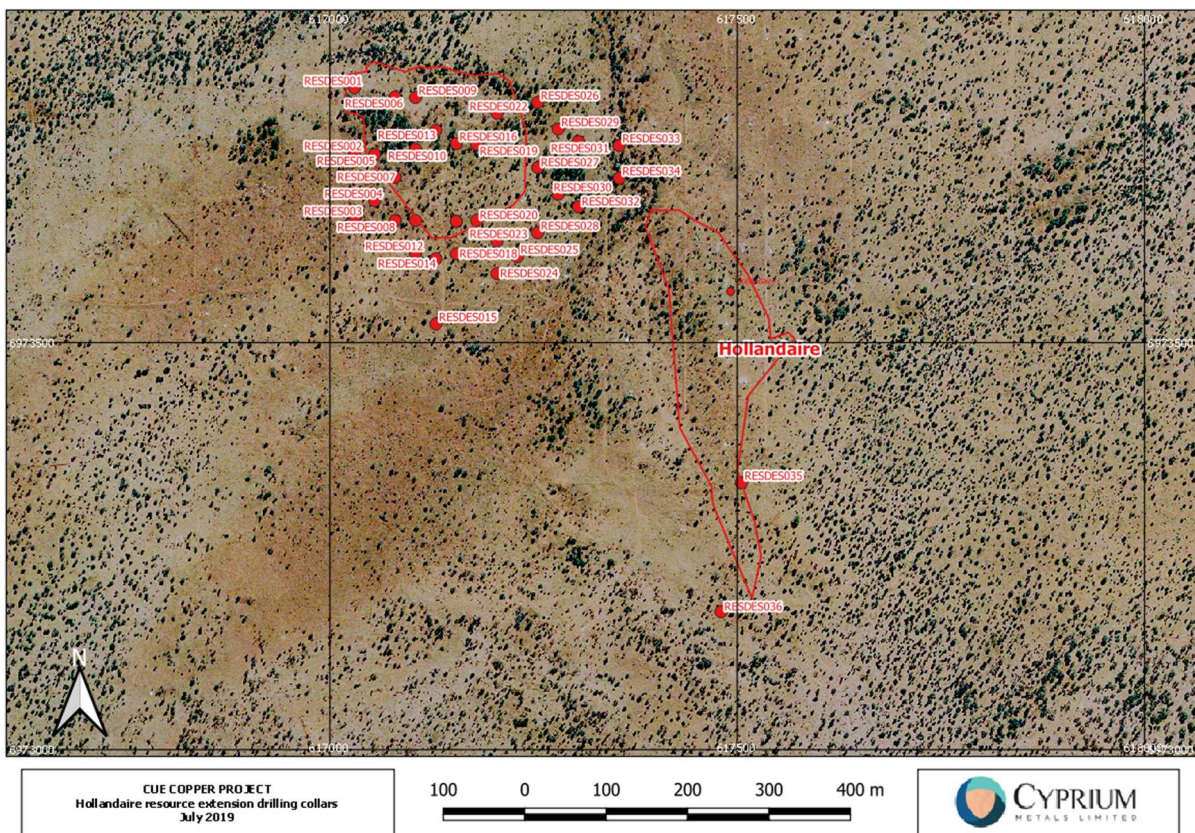
Cyprium Metals Limited (“**CYM**” or “**the Company**”) is pleased to advise that it has approved the commencement of Resource extension and metallurgical drilling at the Cue Copper Project, immediately adjacent to its current Mineral Resource at Hollandaire. This programme is the first in a series of programmes designed to extend the Resource at Hollandaire and Hollandaire West.

A Programme of Work (PoW) has been submitted to the WA Department of Mines, Industry Regulation and Safety, for the drilling of these holes and approval is expected by early July 2019. A drilling contractor will be mobilised to site shortly after approval has been received.

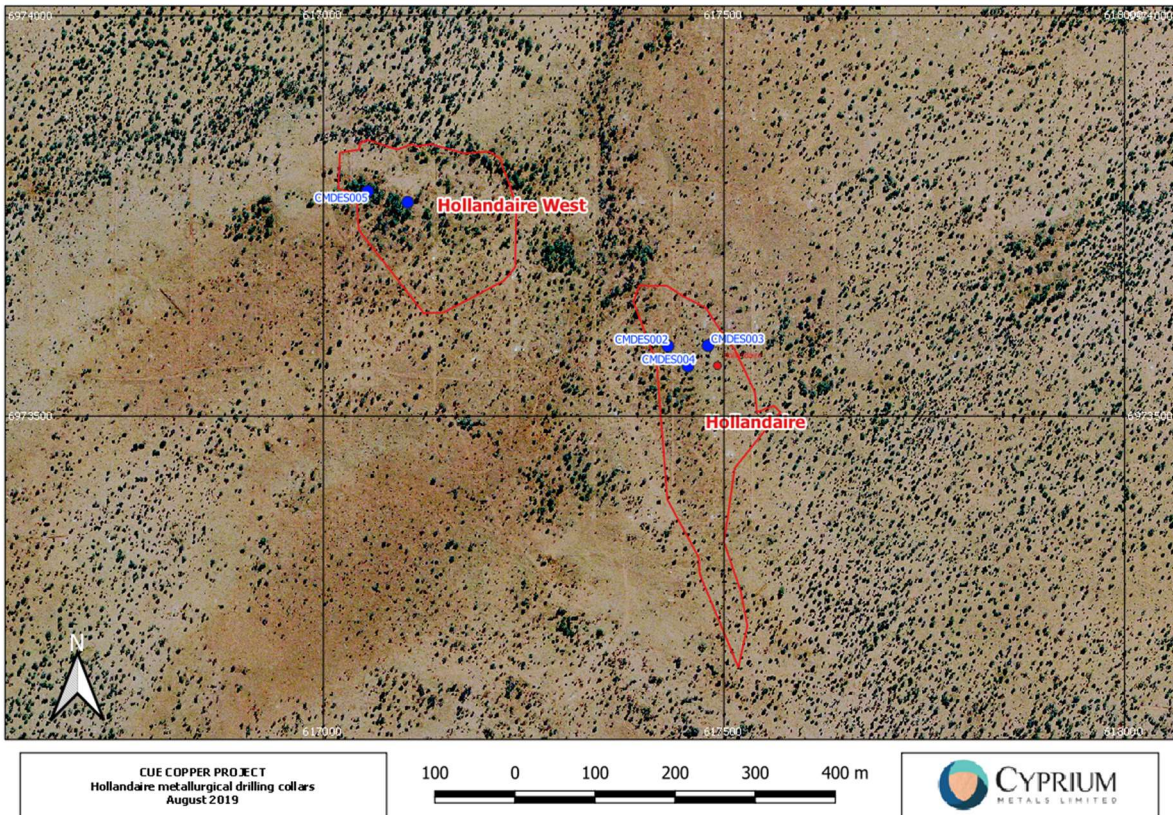
The Phase 1 Resource extension programme is intended to test for extensions of both the Hollandaire and Hollandaire West Resources. Figure 1 shows the locations of the drill hole collars around the current Hollandaire and Hollandaire West Resource. The targeted potential extensions are those that are closer to surface and the majority of which will be drilled into the Hollandaire West area. The holes planned for this phase are for over 4,000 metres of reverse circulation drilling. Following the completion of Phase 1, drilling programmes will continue for a further 8,000 metres of reverse circulation drilling, targeted at the deeper extensions of the current Resource.

The metallurgical drilling will be used for initial column test-work to determine the suitability for alternative extraction methods. The drill holes are targeting specific areas of the known Resource as shown in Figure 2. It is anticipated that following the success of this initial test-work that further samples will be required to continue to optimise the processing methodology.

A number of drill holes in these initial programs will be prepared for down hole geophysics programmes, which will assist in the planning of the subsequent phases of extensional drilling as the Company continues to expand the Resource.



**Figure 1 | Hollandaire Phase 1 Extensional Drill Hole Locations**

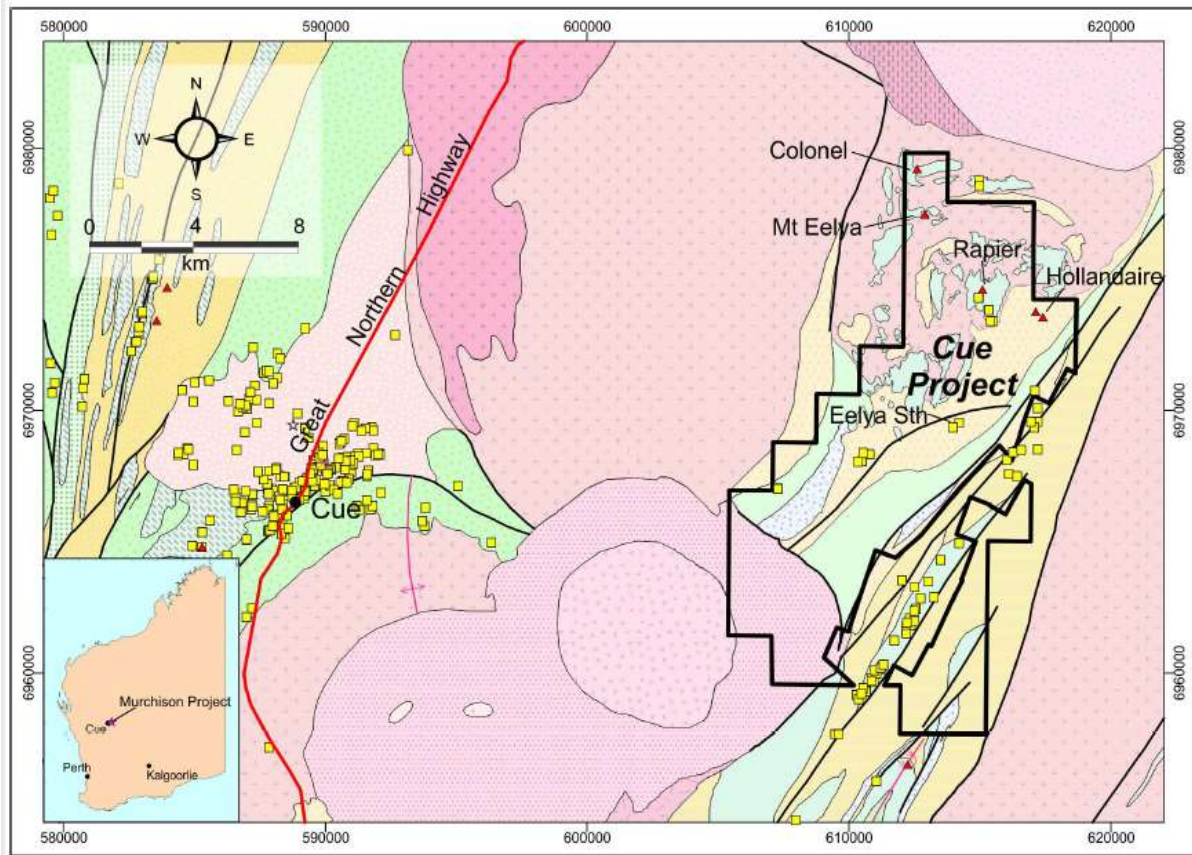


**Figure 2 | Hollandaire Metallurgical Drill Hole Locations**

### The Cue Copper Project

The Project is located in the Murchison region of Western Australia which is host to a number of Volcanic Massive Sulphide (“VMS”) deposits. VMS deposits usually occur in clusters when in favourable geological settings such as those in the Project area. The Exploration leases and Mining Licenses currently held by Musgrave Minerals Limited (MGV) are located approximately 20km to the east of Cue in Western Australia as detailed in Figure 3 below.

The Hollandaire VMS copper resource mineralisation is open to the south west and at depth. The preliminary exploration data has identified a number of high priority targets and drilling will be conducted at Hollandaire and Hollandaire West to determine the extent of the open mineralisation. In conjunction with the resource extension drilling, the Company will prioritise its other exploration drill targets.



**Figure 3 | Hollandaire Copper Resource and location of the Cue Copper Project tenements**

### Technical Overview

The Hollandaire copper resource was discovered in 2011 by Silver Lake Resources Limited (ASX: SLR) and a maiden Mineral Resource estimate was estimated in 2013. CYM believes there is potential to upgrade the remaining inferred material to indicated and to identify further mineralisation as the sulphide lodes are open down dip/plunge.

A JORC compliant Mineral Resource and Mineral Reserve estimate using a 0.5% copper cut-off was completed by Silver Lake Resources Ltd in 2013. The Hollandaire Mineral Resource as reported by MGV in June 2015 is detailed in Table 1 below and Appendix 1.

30 June 2015	Indicated Resources			Inferred Resources			Total Resources		
	Ore Tonnes '000s	Grade %	Total Tonnes Cu 000s	Ore Tonnes '000s	Grade %	Total Tonnes Cu 000s	Ore Tonnes '000s	Grade %	Total Tonnes Cu 000s
Hollandaire Copper	1,891.3	2.0	37.1	122.4	1.4	1.7	2,013.7	1.9	38.8

Table 1 | Hollandaire Copper Mineral Resource Estimate at 0.5% copper cut-off reported by Musgrave Minerals Ltd 30 June 2015



Hollandaire is a VMS deposit which is a style of base metal mineralisation associated with submarine volcanic hydrothermal systems. These frequently occur as clusters along favourable geological horizons as both modern and ancient polymetallic deposits. The Cue region has such favourable seafloor geological horizons consisting of felsic/mafic and metasedimentary sequences with the potential to host further VMS deposits related to or contemporaneous with the Hollandaire system.

#### **Canadian Gold Tenements Update**

The Manitou Gold Project tenements held by the Company in North-western Ontario Canada have been reduced from 245 km<sup>2</sup> to 5 km<sup>2</sup> during the quarter due to expenditure requirements not being achieved. Access to the project had prevented surface sampling and mapping work to be completed in time for tenement expenditure reporting. The Company is focused on progressing the Cue Copper Project following its acquisition as announced on 17 June 2019.

#### **For further information:**

Barry Cahill  
Executive Director

Wayne Apted  
Chief Financial Officer and Company Secretary

T +61 8 6169 3050  
E [info@cypriummetals.com](mailto:info@cypriummetals.com)



## APPENDIX 1

### Notes relating to the Hollandaire 2013 Mineral Resource Inventory:

#### 1. Geology

The Hollandaire deposit is hosted within a sedimentary andesitic turbidite sequence, now metamorphosed to a chlorite muscovite schist. The footwall consists of a dacite/rhyolite porphyry now metamorphosed to a chlorite muscovite schist. Copper, gold and silver are hosted within massive, to matrix and stringer sulphides consisting of dominantly pyrite and chalcopyrite with minor chalcocite.

#### 2. Data Density

The majority of the deposit is drilled to a 25 x 25m drill spacing with only the lower 25% of the deposit drilled to a 50 x 50m spacing.

#### 3. Geological Interpretation

Resource outlines are generated by creating wireframes of interpreted zones of grade continuity. The wireframes are snapped to drill holes and converted in to a mineralisation solid model. This interpretation was carried out by Silver Lake Resources personnel. Mineralised outlines were prepared using a 0.5% Cu; 0.5 g/t Au; and 2 g/t Ag outline with a minimum width of 2m unless constrained by geological boundaries. Constrained 'high' grade domains were constructed inside the main boundaries where the outline cut-off is 7.5% Cu and 20 g/t Ag. Mineralisation was extended 7.5m or half way between the spacing to the last mineralised cross section. Mineralisation was extended 10m down dip from the last mineralised intercept.

#### 4. Drilling Technique

Only RC and Diamond holes were used in the current resource update.

#### 5. Accuracy of Location of Sampling Points

West drill collars have been accurately located by either a licensed surveyor using a total station or DGPS. The Hollandaire deposit is drilled on the National Grid system, Hollandaire on a National Grid +10° from grid North. The majority of drill holes completed surveyed down hole using either an Eastman camera, electronic multi-shot or gyroscopic device.

#### 6. Sampling Techniques

RC samples are collected every 1m. Diamond drill holes are subsampled down to geological intervals a minimum of 20cm. Details of the sampling techniques from the historic drilling are not known.

#### 7. Drill Core Recovery

Drill core recovery was > 90% for 82% of drill hole samples.



## 8. Specific Gravity

Specific Gravity has been assigned to oxide and transitional sections of the resource using interpreted weathering surfaces determined from drill hole logging. The following values were used for the respective zones.

- Oxide 1.8t/m<sup>3</sup>
- Transitional 2.1t/m<sup>3</sup>
- Fresh (waste) 2.80 t/m<sup>3</sup>

Values for the fresh zone were based on calculated densities using the combined analysed percentage of Copper, Iron and Sulphur. Actual measured densities replaced calculated densities where applicable and then inverse distance estimation density calculated for each mineralised block.

## 9. Quality of Assay Data

Assay methods were 40g charge Fire Assay at Ultratrace laboratories, Perth with base metals analysed with a 4-acid digest and finished with ICPOES or ICPMS depending on specific elements. This method has an Au detection limit of 0.01 ppm with an accuracy of +/- 10% for assays of greater than 0.5 ppm Au; Cu detection limit of 5 ppm; and Ag detection limit of 0.5 ppm.

## 10. Quality of Data Description

All drill holes were logged by onsite geologists. Features relating to lithology, alteration type, alteration intensity, vein type are captured and stored in an electronic database.

## 11. Estimation Techniques

A three-dimension block model was created by SLR and copper, gold and silver grade estimated into the interpreted mineralised outlines using Ordinary Kriging grade estimation. Only RC and Diamond drill data was used and sample lengths were all composited to even 1m lengths before estimation.

## 12. Cut-off Grades

Statistical analysis was used to determine high grade cuts to apply to the composite data. Top cuts varied from 4 to entirely uncut g/t for Au domains; 2% to 27% for Cu; and from 6 to 60 g/t for Ag depending on the geological features of the estimated domains.

The resource was reported at a 0.5g/t cut off for Au; 0.5% for Cu; and 1 g/t for Ag.

## 13. Metallurgical Considerations

Metallurgical testing of the Hollandaire core was undertaken in 2013. Recoveries of 95% for Cu; 66% for Au; and 91% for Ag were reported from test work primarily of flotation techniques.