

ASX RELEASE 8 October 2020

**ASX: MGV** 

# Drilling hits high-grade gold at new target, 400m south of Starlight

- The regional drilling program targeting Starlight analogues at Cue has intersected high-grade gold at a new target 400m south of Starlight
- A single aircore/RC traverse across a new regional target (Target 2) intersected:
  - 5m @ 13.4g/t Au from 28m (20MUAC008) including;
    - 2m @ 30.9g/t Au from 28m
  - 8m @ 8.4g/t Au from 41m (20MUAC009) including;
    - o 4m @ 15.4g/t Au from 44m
- There is no historical drilling in this area which is concealed by 2-3m of transported hardpan clays
- This new zone is highly encouraging and highlights the potential for Starlight repeats along strike
- Follow-up drilling is currently being planned
- Regional, first pass drill testing of Starlight analogue targets within the belt is continuing

Musgrave Minerals Ltd (ASX: **MGV**) ("Musgrave" or "the Company") is pleased to report assay results for the first 49 aircore/reverse circulation ("RC") drill holes from the current regional program on its 100%-owned ground at its flagship Cue Gold Project in Western Australia's Murchison district (Figure 1).

The program is testing for new Starlight analogue targets on trend with the new high-grade Starlight gold discovery at the Break of Day deposit. A single traverse of drill holes, spaced at 20m intervals was planned as a first pass to test an initial 21 targets. Target 2, 400m south of Starlight has intersected high-grade gold near surface in two adjacent holes. The mineralisation is blind from surface, hidden below 2-3m of transported hardpan clays and is open along strike and down dip (*Figure 3*).

Musgrave Managing Director Rob Waugh said: "This is a great start to the regional program. Any significant gold anomalism on these new targets is encouraging but to get these high-grades from this reconnaissance program is a very exciting result. We're currently planning further follow-up drilling to commence in late October."

To date a total of 220 aircore/RC holes have been completed in the regional program with assays received for 49 holes across five targets. All new anomalous assay results and drill collars are shown in Tables 1a and 1b.

This regional aircore/RC drill program to test for Starlight analogues in the belt is progressing well and has been extended to >17,000m. To date, an estimated 12,000m of drilling over 16, of a planned 21 targets (*Figure 2*) has been completed. Further assays are expected in coming weeks.

The program is testing targets derived from geophysical, geochemical and geological data and is focused on the potential for high-grade gold mineralisation on structures cross-cutting stratigraphy similar to that seen at Starlight.

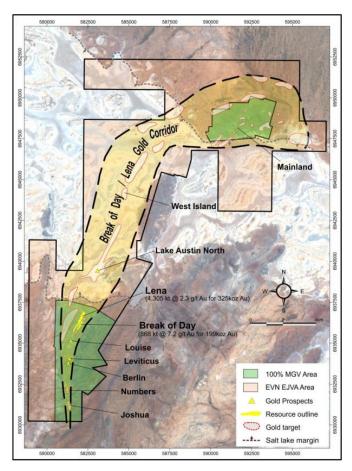


Figure 1: Prospect location plan

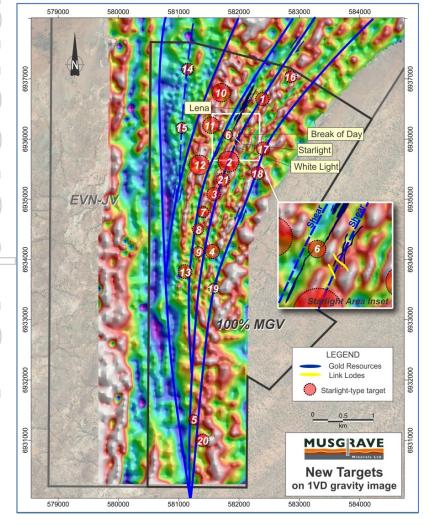


Figure 2: Plan showing regional targets on 1VD gravity image

# **Discussion of Results**

One metre individual samples have been analysed from aircore/RC holes (the drill rig has the capacity to switch between aircore and RC hammer depending on ground conditions) drilled in the current program with details presented in Tables 1a and 1b. All intervals assaying 6m above 0.1g/t Au (or gram x metre equivalents) have been reported in this release and are of potential significance.

Significant new intercepts over Target 2 (Figures 3 and 4) include:

- o 9m @ 7.6g/t Au from 27m (20MUAC008) including;
  - 5m @ 13.4g/t Au from 28m including;
    - o 2m @ 30.9g/t Au from 28m
- 14m @ 5.0g/t Au from 37m to end of hole (20MUAC009) including;
  - 8m @ 8.4g/t Au from 41m including;
    - o 4m @ 15.4g/t Au from 44m

These two aircore drill holes are collared 20m apart and were extended into fresh rock with RC hammer. Additional follow-up drilling will be required to define the strike and depth extent of this new mineralised position.

Drilling at targets 1, 3, and 7 also returned anomalous gold results in the regolith (weathered zone) with further assessment required before follow-up drilling is scheduled.

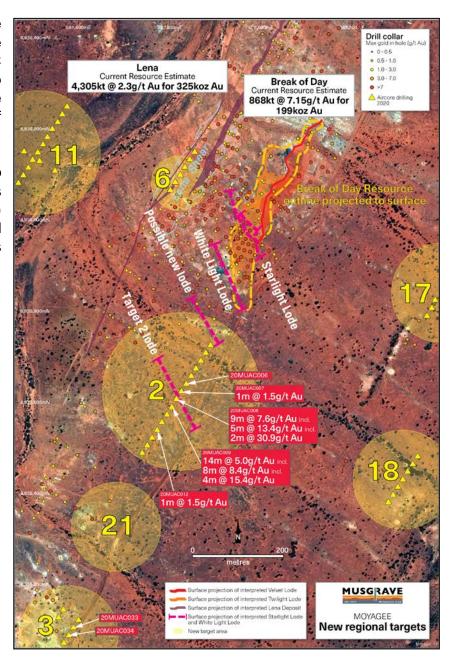


Figure 3: Plan showing drill hole collars from regional drill program and new significant assay results

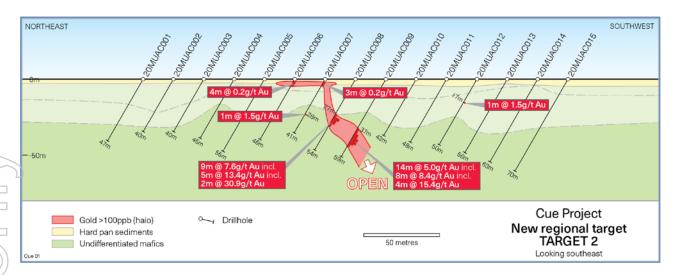


Figure 4: Cross section of Target 2 reconnaissance drill traverse line and significant assay results

# **Break of Day**

The current resource estimate for the Cue Gold Project totals **6.45Mt** @ **3.0g/t** Au for **613koz** including the Break of Day deposit (868Kt @ 7.2g/t Au for 199koz contained gold) and the Lena deposit (4.3Mt @ 2.3g/t Au for 325koz contained gold) located 130m to the west (see MGV ASX announcements dated 14 July 2017 and 17 February 2020).

This current resource estimate does not include any results from the new Starlight and White Light gold discoveries. The updated resource estimate incorporating these results is scheduled for October, 2020.

## **Ongoing Exploration**

# Musgrave 100% tenements

- Follow-up drilling of this new, exciting high-grade target zone 400m to the south of Starlight is currently being planned and is expected to commence in late October.
- Further drilling to test the possible new lode 100m to the south of White Light announced on 28 September is scheduled for November.
- The Break of Day resource update including the Starlight and White Light lodes, is scheduled for late October, 2020.
- Metallurgical test work is underway at Starlight with results expected in late October.

# **Evolution JV**

• The Phase 2 aircore drilling program testing high-priority gold targets on Lake Austin is continuing with approximately 12,000m completed of a planned 21,900m program.

### THE CUE PROJECT

The Cue Project ("the Project") is located in the Murchison district of Western Australia (Figure 5) and hosts Mineral Resources (Indicated and Inferred) totalling 6.45Mt @ 3.0g/t gold for 613,000oz contained gold (MGV ASX announcement dated 17 February 2020. "Lena Resource Update"). The Company has defined +28km-long prospective gold corridor that includes the Break of Day-Starlight, Lake Austin North and Mainland-Consols gold discoveries.

The Company believes there is significant potential to extend existing mineralisation and discover new gold deposits within the Project area, as demonstrated by the recent drilling success at Starlight, White Light, Lena and Lake Austin North. Recent high-grade discoveries have opened the exploration search space and enhanced the probability of new making discoveries in the Musgrave's intent is to grow the resource base and investigate options to best develop a low-cost operation, capable of delivering strong financial returns for its shareholders.

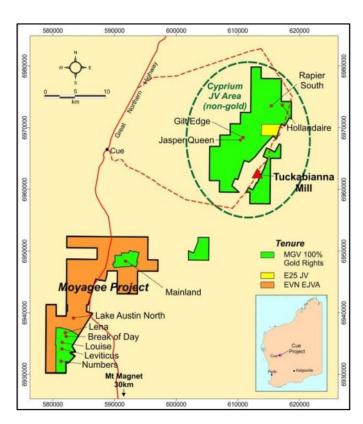


Figure 5: Cue Project location plan and tenure

Musgrave has executed an \$18 million Earn-in and Exploration Joint Venture with Evolution Mining Ltd over the Lake Austin portion of the Cue Project (*Figure 5*). The Break of Day, Starlight, Lena and Mainland areas are excluded from the Earn-in and Exploration Joint Venture with Evolution Mining Ltd.

Cyprium Australia Pty Ltd ("Cyprium") has earned an 80% interest in the non-gold rights over the northern tenure at Cue including the Hollandaire deposit and a formal joint venture was executed in May 2020 (*Figure 5*). Musgrave will retain 100% of the gold rights and a 20% free-carried interest in the non-gold rights to the completion of a definitive feasibility study.

For and on behalf of Musgrave Minerals Limited. Rob Waugh Managing Director

# For further details please contact:

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#### About Musgrave Minerals

Musgrave Minerals Limited is an active Australian gold and base metals explorer. The Cue Project in the Murchison region of Western Australia is an advanced gold and copper project. Musgrave has had significant exploration success at Cue with the ongoing focus on increasing the gold and copper resources through discovery and extensional drilling to underpin studies that will demonstrate a viable path to development in the near term. Musgrave also holds a large exploration tenement package in the Ni-Cu-Co prospective Musgrave Province in South Australia.



#### Additional JORC Information

Further details relating to the information provided in this release can be found in the following Musgrave Minerals' ASX announcements:

- 28September 2020, "White Light lode extended and potential new zone identified"
- 24 September 2020, "Infill drilling at Break of Day confirms high grades"
- 15 September 2020, "Company presentation RIU Resurgence Conference"
- 19 August 2020, "Starlight gold mineralisation extended"
- 10 August 2020, "Company Presentation August Exploration Update"
- 31 July 2020, "Quarterly Activities and Cashflow Report" 28 July 2020, "Bonanza gold grades continue at Starlight with 3m @ 884.7g/t Au"
- 6 July 2020, "85m@11.6g/t gold intersected near surface at Starlight"
- 29 June 2020, "New gold lode discovered 75m south of Starlight
- 9 June 2020, "Bonanza near surface hit of 18m@179.4g/t gold at Starlight"
- 5 June 2020, "Scout drilling defines large gold targets at Cue, Evolution JV"
- 3 June 2020, "12m@112.9g/t Au intersected near surface at Starlight"
- 27 April 2020, "Musgrave raises \$6 million to advance drilling at new high-grade Starlight gold discovery, Cue"
- 22 April 2020, "Quarterly Activities and Cashflow Report"
- 21 April 2020, "High grades confirmed at Starlight"
- 20 April 2020, "Corporate update"
- 1 April 2020, "More High-grade gold at Starlight Link-Lode, Break of Day"
- 16 March 2020, "Starlight Link-lode shines at Break of Day"
- 12 March 2020, "Half Year Accounts
- 28 February 2020, "High-grade gold intersected Link-lode, Break of Day" 17 February 2020, "Lena Resource Update"
- 13 January 2020, "More high-grade gold intersected at Cue"
- 3 December 2019, "New high-grade 'link-lode' intersected at Break of Day, Cue Project"
- 27 November 2019, "High-grade gold intersected in drilling at Mainland, Cue Project"
- 21 November 2019, "2019 AGM Presentation"
- 30 October 2019, "Mainland drilling commences and more high-grade gold intersected at Lena, Cue Project"
- 18 October 2019, "Annual Report"
- 9 October 2019, "High-grade gold intersected at Break of Day and ultra-high-grade rock-chip sample from Mainland, Cue Project"
- 24 September 2019, "Further High-grade gold intersected at Lena below the existing resource, Cue Project"
- 17 September 2019, "Musgrave and Evolution sign an \$18 million Earn-In JV and \$1.5M placement to accelerate exploration at Cue"
- 3 September 2019, "High-Grade Gold Extension at Break of Day, Cue Project"
- 20 August 2019, "High-Grade Gold Intersected at Lena and Mainland, Cue Project"
- 12 July 2019, "Opportunity to Extend Lena High-Grade Resource at Cue"
- 28 May 2019, "Scout Drilling Extends Gold Zone to >3km at Lake Austin North"
- 1 May 2019, "Drilling at A-Zone Continues to Deliver Thick, High-Grade Gold Intersections"
- 6 March 2019, "Musgrave Secures More Key Gold Tenure at Cue"
- 3 December 2018, "Diamond Drilling Confirms Significant Gold Discovery at Lake Austin North"
- 29 October 2018, "High-Grade Extended at Lake Austin North, Cue"
- 31 August 2018, "First RC drill hole hits 42m @ 3.2g/t Au at Lake Austin North, Cue"
- 27 July 2018, "Lake Austin North target continues to deliver strong gold results, Cue Gold Project, WA"
- 15 June 2018, "High-Grade Gold Intersected at Lake Austin North, Cue Gold Project, WA"
- 18 May 2018, "New Drill Results Highlight Regional Discovery Potential at Cue Gold Project, WA"
- 16 August 2017, "Further Strong Gold Recoveries at Lena"
- 14 July 2017, "Resource Estimate Exceeds 350koz Au"

#### Competent Person's Statement Exploration Results

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled and/or thoroughly reviewed by Mr Robert Waugh, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Waugh is Managing Director and a fulltime employee of Musgrave Minerals Ltd. Mr Waugh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Waugh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include, but are not limited to statements concerning Musgrave Minerals Limited's (Musgrave's) current expectations, estimates and projections about the industry in which Musgrave operates, and beliefs and assumptions regarding Musgrave's future performance. When used in this document, words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Musgrave believes that its expectations reflected in these forwardlooking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Musgrave and no assurance can be given that actual results will be consistent with these forward-looking statements.

Table 1a: Summary of recent Aircore/RC assay intervals from recent regional drilling program

	II Hole ID	Drill Ty	pe Pros	pect	Sample Type		From (m)	Interval (m)	Au (g/t)		Lode	Comment
20MI	/UAC006	AC		ional get 2	1m individ	dual	1	4	0.2		Halo	Dispersion halo
					1m individ	dual	2	3	0.2		Halo	Dispersion halo
20MI	MUAC007	AC		ional get 2	1m individ	dual	26	1	1.5	1	Jnknown	Fresh rock anomaly
					1m individ	dual	27	9	7.6			
20MI	MUAC008	AC/RC		ional get 2	Include	es	28	5	13.4		New	New high-grade lode Intersection in fresh rock
D			Taiç	jei z	Include	es	28	2	30.9			
					1m individ	dual	37	14	5.0			
20MI	MUAC009	AC/RC		ional get 2	Include	es	41	8	8.4		New	New high-grade lode Intersection in fresh roo
				,	Include	es	44	4	15.5			
20MI	/UAC012	AC		ional get 2	1m individ	dual	17	1	1.54	ı	Jnknown	Regolith anomalism
20MI	MUAC025	AC	Reg Targ	ional get 1	1m individ	dual	15	8	0.3	1	Jnknown	Regolith anomalism Source unknown
0014			Rea	ional			12	2	0.15	-	Jnknown	Regolith anomalism
20MI	MUAC033	AC		get 3	1m individ	dual	17	1	0.48	1	Jnknown	Source unknown
20MI	MUAC034	AC		ional get 3	1m individ	dual	28	2	0.24	-	Jnknown	Regolith anomalism Source unknown
20MI	IUAC036	AC		ional get 3	1m individ	dual	13	5	0.2	1	Jnknown	Regolith anomalism Source unknown
/				Regional								Regolith anomalism
20MI	MUAC037	AC			1m individ	dual	14	4	0.2	'	Jnknown	Source unknown
20MI	MUAC040	AC	Tarç Reg Tarç	get 3 ional get 7	1m individ	dual	11	1	1.46	ı	Jnknown	Source unknown Regolith anomalism Source unknown
20MI	MUAC040	ac b: <i>Sun</i>	Tarç Reg Tarç	get 3 ional get 7  recer	1m individ	drill Co	ollars fro	om ano	1.46	hole	Jnknown  S, regiona  Total Depth	Source unknown Regolith anomalism Source unknown
20MI	Table 1	b: Sun	Reg Targ	get 3 ional get 7  recer	1m individ	drill Co	ollars fro	om ano Azimuth	1.46  malous	RL (m)	Jnknown  S, regiona  Total Depth (m)	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays
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20MU	Table 1  Drill Ho  20MUAC	AC b: <b>Sun</b> Die ID C006  C007	Reg Targ  Prill Type  Aircore  Aircore	pet 3 ional pet 7  recer  Pro  Reg	1m individ	drill CC	11 Dillars from progre Northing (m) 6935641 6935624	Dom ano Azimuth (deg) 30 30	1.46  malous  Dip (deg)  -60  -60	RL (m) 418	Total Depth (m) 46 41	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays  Reported Above  Reported Above
20MU	Table 1  Drill Ho  20MUAC  20MUAC	AC b: Sun	Reg Targ  Prill Type  Aircore  Aircore/RC	pet 3 ional pet 7  Pro Reg Reg Reg	1m individ	dual dual drill co	11 Dollars from progress (m) 6935641 6935607	Dom ano am Azimuth (deg) 30 30 30	1.46  malous  Dip (deg)  -60  -60  -60	RL (m) 418 418	Total Depth (m) 46 41 54	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays  Reported Above  Reported Above  Reported Above
20MU	Table 1  Drill Ho  20MUAC  20MUAC  20MUAC	AC b: Sun cone ID cone Cone Cone Cone Cone Cone Cone Cone C	Reg Targ  Reg Targ  Prill Type  Aircore  Aircore/RC  Aircore/RC	pet 3 ional pet 7  Pro Req Req Req Req	1m individ	dual dual drill co	11 Dillars from programme (m) 6935641 6935624 6935590	Azimuth (deg) 30 30 30	1.46  malous  Dip (deg)  -60  -60  -60  -60	RL (m) 418 418 418	Total Depth (m)  46  41  54	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays  Reported Above  Reported Above  Reported Above  Reported Above
20MI	Drill Ho 20MUAC 20MUAC 20MUAC 20MUAC 20MUAC	AC b: Sun	Prill Type Aircore Aircore/RC Aircore Aircore	pet 3 ional pet 7  Pro Reg Reg Reg Reg Reg	1m individ	dual dual drill co	11 Dillars from programme (m) 6935641 6935624 6935590 6935539	1	1.46  malous  Dip (deg)  -60  -60  -60	RL (m) 418 418 418 418	Total Depth (m)  46  41  54  50	Source unknown Regolith anomalism Source unknown  Il aircore/RC drii  Assays  Reported Above  Reported Above  Reported Above  Reported Above  Reported Above  Reported Above
20MI	Table 1  Drill Ho  20MUAC  20MUAC  20MUAC	AC b: Sun cle ID cooe coor cooe coop coop coop coop coop coop coop	Reg Targ  Reg Targ  Prill Type  Aircore  Aircore/RC  Aircore/RC	pet 3 ional pet 7  Pro Req Req Req Req Req	1m individ	dual dual drill co	11 Dillars from programme (m) 6935641 6935624 6935590	Azimuth (deg) 30 30 30	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60	RL (m) 418 418 418	Total Depth (m)  46  41  54	Source unknown Regolith anomalism Source unknown  Il aircore/RC drii  Assays Reported Above Reported Above Reported Above Reported Above
20MU	Table 1  Drill Ho  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC	AC b: Sun  ole ID  C006  C007  C008  C009  c0012  C025  C033	Prill Type Aircore Aircore/RC Aircore/RC Aircore/RC Aircore/RC	pet 3 ional get 7  Pro Reg Reg Reg Reg Reg Reg	1m individ	dual dual dual drill co	11 Dollars from progro (m) 6935641 6935607 6935590 6936696	1	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60  -60	RL (m) 418 418 418 418 418	Total Depth (m)  46  41  54  50  54	Source unknown Regolith anomalism Source unknown  Il aircore/RC drii  Assays  Reported Above
20MU	Drill Ho  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC	AC b: Sun  ole ID  coo6 coo7 coo8 coo9 coo12 co25 co33 co34	Prill Type Aircore Aircore/RC	Pro Pro Reg Reg Reg Reg Reg Reg Reg Reg	1m individ	dual dual drill co	11  Diliars fro progre Northing (m)  6935641  6935624  6935607  6935539  6936696  6935105	1  Dom ano am  Azimuth (deg)  30  30  30  30  30  30  30  30	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60  -60  -60	RL (m) 418 418 418 418 418	Total Depth (m)  46  41  54  50  54  37	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays Reported Above
20MI	Drill Ho  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC  20MUAC	AC b: Sun  cle ID cooe coor cooe coop coop coop coop coop coop coop	Prill Type Aircore Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore	Pro Req Req Req Req Req Req Req	1m individent MGV despect Signal Sign	dual dual drill co	11 Dollars from programme (m) 6935641 6935624 6935539 6936596 6935105 6935088	1	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60  -60  -60  -6	RL (m) 418 418 418 418 418 418	Total Depth (m)  46  41  54  50  54  37  36	Source unknown Regolith anomalism Source unknown  Il aircore/RC dril  Assays  Reported Above
20MI	Drill Ho 20MUAC 20MUAC 20MUAC 20MUAC 20MUAC	AC b: Sun	Prill Type Aircore Aircore/RC Aircore Aircore	pet 3 ional pet 7  Pro Reg Reg Reg Reg Reg	1m individ	dual dual drill co	11 Dillars from programme (m) 6935641 6935624 6935590 6935539	1	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60	RL (m) 418 418 418 418	Total Depth (m)  46  41  54  50	Assays  Reported Above  Reported Above  Reported Above  Reported Above  Reported Above  Reported Above
20MU	Drill Ho	AC b: Sun  cle ID cooe coor cooe coop coop coop coop coop coop coop	Drill Type Aircore Aircore/RC Aircore/RC Aircore Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore	Pro Req Req Req Req Req Req Req	1m individent MGV despect Eaguer Signal Sign	dual dual dual drill co	11 Dollars from programme (m) 6935641 6935624 6935539 6936696 6935105 6935088 6935054	1  Dom ano am  Azimuth (deg)  30  30  30  30  30  30  30  30  30  3	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60  -60  -60  -6	RL (m) 418 418 418 418 418 418 418 418	Total Depth (m)  46  41  54  50  54  37  36  65	Regolith anomalism Source unknown Regolith anomalism Source unknown  Il aircore/RC dri  Assays  Reported Above  Reported Above
20MU	Drill Ho	AC b: Sun  cle ID  close I	Drill Type Aircore Aircore/RC Aircore/RC Aircore Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore/RC Aircore	Pro Reg	1m individ	dual dual dual drill co	11 Dollars from programme (m) 6935641 6935624 6935539 6936696 6935105 6935088 6935054	1  Dom ano am  Azimuth (deg)  30  30  30  30  30  30  30  30  30  3	1.46  malous  Dip (deg)  -60  -60  -60  -60  -60  -60  -60  -6	RL (m) 418 418 418 418 418 418 418 418	Total Depth (m)  46  41  54  50  54  37  36  65	Regolith anomalism Source unknown Regolith anomalism Source unknown  Il aircore/RC dri  Assays  Reported Above  Reported Above

Table 1b: Summary of recent MGV drill collars from anomalous holes, regional aircore/RC drill program

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
20MUAC006	Aircore	Regional	581837	6935641	30	-60	418	46	Reported Above
20MUAC007	Aircore	Regional	581826	6935624	30	-60	418	41	Reported Above
20MUAC008	Aircore/RC	Regional	581815	6935607	30	-60	418	54	Reported Above
20MUAC009	Aircore/RC	Regional	581804	6935590	30	-60	418	54	Reported Above
20MUAC0012	Aircore	Regional	581772	6935539	30	-60	418	50	Reported Above
20MUAC025	Aircore/RC	Regional	582408	6936696	30	-60	418	54	Reported Above
20MUAC033	Aircore	Regional	581589	6935105	30	-60	418	37	Reported Above
20MUAC034	Aircore	Regional	581579	6935088	30	-60	418	36	Reported Above
20MUAC036	Aircore/RC	Regional	581557	6935054	30	-60	418	65	Reported Above
20MUAC037	Aircore	Regional	581547	6935038	30	-60	418	36	Reported Above
20MUAC040	Aircore	Regional	581435	6934837	30	-60	418	41	Reported Above

#### Notes to Tables

- An accurate dip and strike and the controls on mineralisation are only interpreted and the true width of the mineralisation are unconfirmed at this time.
- In Aircore and RC drilling six metre composite samples are collected and analysed for gold together with selected 1m intervals on visual geology while individual one metre samples are collected and analysed pending composite results. Composite samples assaying >0.1g/t Au are re-analysed at one metre intervals.
- All samples are analysed using either a 50g fire assay with ICP-MS (inductively coupled plasma mass spectrometry) finish gold analysis (0.005ppm detection limit) by Genalysis-Intertek in Maddington, Western Australia or a 500g sample by PhotonAssay at MinAnalytical in Canningvale.
- g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept)
- Higher grade intersections reported here are generally calculated over intervals >0.1g/t Au across 6m or gram x metre equivalent over thinner intervals where zones of internal dilution are not weaker than 2m < 0.1g/t Au. Bulked thicker intercepts may have more internal dilution between high-grade zones.
- All drill holes referenced in this announcement are reported in Tables 1a and 1b above.
- Drill type; AC = Aircore, RC = Reverse Circulation, Diam = Diamond.
- Coordinates are in GDA94, MGA Z50.

# JORC TABLE 1 Section 1 Sampling Techniques and Data

	Criteria	Explanation	Commentary
	Sampling techniques	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	MGV sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals.  A Thermo Scientific Niton GoldD XL3+ 950 Analyser is available
		handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	on site to aid geological interpretation. No XRF results are reported. Historical sampling criteria are unclear for pre 2009 drilling.
	,		Current Aircore drill program  Air core samples are composited at 6m intervals using a stainless steel scoop with all composite intervals over 0.1g/t Au
		Include reference to measures taken to ensure cample	resampled at 1m intervals using a stainless steel scoop. Individual 1m samples are submitted for initial assays where significant obvious mineralisation is intersected.
		Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All co-ordinates are in UTM grid (GDA94 Z50) and drill hole collars have been surveyed by GPS to an accuracy of 0.5m.
		Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to	Current Aircore drill program  Aircore samples are composited at 6m intervals using a stainless steel scoop with all composite intervals over 0.1g/t Au resampled at 1m intervals by stainless steel scoop. One make individual complete are imposited to the program of the program
		obtain 1m samples from which 3kg was pulverised to produce a 30g 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 (eg	individual samples are immediately submitted for analysis where a high probability of mineralisation occurs (e.g. quartz vein lode or massive sulphide). The 3kg samples are pulverised to produce a 50g charge for fire assay with ICP-MS finish for gold
		submarine nodules) may warrant disclosure of detailed information.	gold.  All 1m samples are sampled to 1-3kg in weight to ensure total preparation at the laboratory pulverization stage.  The sample size is deemed appropriate for the grain size of the material being sampled.
			Some samples are sent to the Genalysis – Intertek laboratory in Maddington where they are pulverized to 85% passing -75um and analysed using a 50g fire assay with ICP-MS (inductively
			coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit).  Some samples are sent to the NATA accredited MinAnalytical Laboratory in Canningvale, Perth and analysed via PhotonAssay
			technique (method code PAAU2) along with quality control samples and duplicates. Individual samples are assayed for gold after drying and crushing to nominally 85% passing 2mm and a 500g linear split taken for PhotonAssay (method code PAP3512R).
			The PhotonAssay technique was developed by CSIRO and Chrysos Corporation and is a fast, chemical free non-destructive, alternative using high-energy X-rays to traditional fire assay and uses a significantly larger sample size (500g v's 50g for fire assay). This technique is accredited by the National Association of Testing Authorities (NATA)
	Drilling techniques	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).	Association of Testing Authorities (NATA).  Aircore/RC drilling was used for this MGV program. Strike Drilling Pty Ltd utilised an X350 tracked drill rig with an onboard compressor with 430psi/1000cfm. Aircore/RC holes were drilled with an 83mm diameter blade bit. The drill rig has the capacity to switch between aircore and RC pending ground conditions.
			A combination of historical RAB, aircore, RC and diamond drilling has been utilised by multiple companies over a thirty year period across the broader project area.
	Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Aircore 6m composite samples are collected and re-assayed at 1m intervals were comps are above 0.1g/t Au. Sample weights, dryness and recoveries are observed and noted in a field Toughbook computer by MGV field staff.
		Measures taken to maximise sample recovery and ensure representative nature of the samples.	MGV contracted drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination including using compressed air to maintain a dry sample in aircore drilling.  Historical sampling recovery is unclear for pre 2009 drilling.
		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.	No significant sample loss or bias has been noted in current drilling or in the historical reports or from other MGV drill campaigns.

Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support	All geological, structural and alteration related observations are stored in the database. Air core holes would not be used in any
	appropriate Mineral Resource estimation, mining studies and metallurgical studies.	resource estimation, mining or metallurgical studies.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of lithology, structure, alteration, mineralisation, weathering, colour and other features of core or RC/aircore chips is undertaken on a routine 1m basis or on geological intervals for diamond core.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full on completion.
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Aircore samples are taken from 1m sample piles and composited at 6m intervals using a stainless steel scoop, with all intervals over 0.1g/t Au resampled at 1m using a stainless steel scoop
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill sample preparation and precious metal analysis is undertaken by registered laboratories (Genalysis – Intertek and MinAnalytical). Sample preparation by dry pulverisation to 85% passing 75 micron.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	MGV field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks at appropriate intervals for early stage exploration programs. High, medium and low gold standards are used. Where high grade gold is noted in logging, a blank quartz wash is inserted between individual samples at the laboratory before analysis.  Historical QA/QC procedures are unclear for pre 2009 drilling.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Sampling is carried out using standard protocols and QAQC procedures as per industry practice.  Duplicate samples are inserted (~1:30) and more frequently when in high-grade gold veins, and routinely checked against originals. Duplicate sampling criteria is unclear for historical pre 2009 drilling.  Historical QA/QC procedures are unclear for pre 2009 drilling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation. Samples are collected from full width of sample interval to ensure it is representative of sample complete interval.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	On composite and 1m Aircore samples, analysis is undertaken by Intertek-Genalysis (a registered laboratory), with 50g fire assay with ICP-MS finish undertaken for gold.  Some samples are sent to the NATA accredited MinAnalytical Laboratory in Canningvale, Perth and analysed via PhotonAssay technique. Individual samples are assayed for gold after drying and crushing to nominally 85% passing 2mm and a 500g linear split taken for PhotonAssay (method code PAP3512R).
		Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards.  This methodology is considered appropriate for base metal mineralisation and gold at the exploration phase.
	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.	No geophysical tools were used to estimate mineral or element percentages. Musgrave utilise a Thermo Scientific Niton GoldD XL3+ 950 Analyser to aid geological interpretation.
Verification of	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.  The verification of significant intersections by either independent on alternative segment and precisions.	MGV field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks (1:50) at appropriate intervals for early stage exploration programs.  Historical QA/QC procedures are unclear for pre 2009 drilling.  MGV samples are verified by the geologist before importing into the main MGV detabase (Patached)
sampling and assaying	independent or alternative company personnel.  The use of twinned holes.	into the main MGV database (Datashed).  No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected using a standard set of templates. Geological sample logging is undertaken on one metre intervals for all RC drilling with colour, structure, alteration and lithology recorded for each interval. Data is verified before loading to the database. Geological logging of all samples is undertaken.
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data reported.

Location of data	Accuracy and quality of surveys used to locate drill	All maps and locations are in UTM grid (GDA94 Z50) and have
points	holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	been surveyed or measured by hand-held GPS with an accuracy of >±2 metres.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and historical drill holes are converted from local grid references.
	Quality and adequacy of topographic control.	All current aircore drill hole collars are planned and set up using hand-held GPS (accuracy +-2m).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings are used to complete 1 <sup>st</sup> pass testing of targets and are determined from geochemical, geophysical and geological data together with historical drilling information. For the reported drilling drill hole spacing was approximately 20m along traverse lines.
	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.	No resources have been calculated on regional drilling targets as described in this release due to the early stage nature of the drilling
	Whether sample compositing has been applied.	6m composite samples are submitted for initial analysis in most cases. Composite sampling is undertaken using a stainless steel scoop at one metre samples and combined in a calico bag. Where composite assays are above 0.1g/t Au, individual 1m samples are submitted for gold assay. One metre individual samples may be submitted without composites in certain intervals of visibly favourable gold geology.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling is designed to cross the mineralisation as close to perpendicular as possible on current interpretation whilst allowing for some minor access restrictions and mitigating safety risks.  Most drill holes are designed at a dip of approximately -60 degrees.
	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.	No orientation based sampling bias is known at this time.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by MGV internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth (Genalysis-Intertek at Maddington or MinAnalytical in Canningvale). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system at Genalysis-Intertek).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been completed on sampling techniques and data due to the early stage nature of the drilling
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**Section 2 Reporting of Exploration Results** 

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	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.	Musgrave Minerals secured 100% of the Moyagee Project area in August 2017 (see MGV ASX announcement 2 August 2017: "Musgrave Secures 100% of Key Cue Tenure") from Silver Lake Resources Ltd.  The Break of Day, Starlight and Lena prospects are located on granted mining lease M21/106 and the primary tenement holder is Musgrave Minerals Ltd.  The Cue project tenements consist of 38 licences. The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are presen on some individual tenements.  The Mainland prospects are on tenements P21/731, 732, 735, 736, 737, 739, 741 where MGV has an option to acquire 100% of the basement gold rights on the tenements (not part of the EVN JV).  A new Earn-in and Exploration Joint Venture was executed with Evolution Mining Ltd on 16 September 2019 covering Lake Austin and some surrounding tenure but excludes all existing resources including Break of Day and Lena (see MGV ASX release dated 17 September 2019, "Musgrave and Evolution signals of S18 million Earn-in JV and \$1.5 million placement to accelerate exploration at Cue") and the new Mainland option area.
	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.	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling, soil sampling and geophysical surveys have been undertaken in different areas on the tenements intermittently by multiple third parties over a period of more than 30 years.  At Break of Day, Lena and Mainland historical exploration and drilling has been undertaken by a number of companies and at Break of Day and Lena most recently by Silver Lake Resources Ltd in 2009-13 and prior to that by Perilya Mines Ltd form 1991-2007. Musgrave Minerals has undertaken exploration since 2016.
Geology	Deposit type, geological setting and style of mineralisation.	Geology comprises typical Archaean Yilgarn greenstone belt lithologies and granitic intrusives.  Two main styles of mineralisation are present, typical Yilgarn Archaean lode gold and volcanic massive sulphide (VMS) base metal and gold mineralisation within the Eelya Felsic Complex.
Drill hole Information	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: easting and northing of the drill hole collar elevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	All RC drill holes collars with assays received for the current dril program at Starlight are reported in this announcement. All relevant historical drill hole information has previously been reported by Perilya, Silver Lake Resources, MGV and various other companies over the years.
Data aggregation methods	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 and should be stated.	Significant assay intervals are recorded above 1g/t Au with a minimum internal interval dilution of 2m @ 0.5g/t Au. No cutoff has been applied to any sampling.
	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.  The assumptions used for any reporting of metal	No cut-off has been applied to any sampling. Reported interval are aggregated using individual assays above 1g/t Au with no more than 2m of internal dilution <0.5g/t Au for any interval. Short high-grade intervals are tabulated in Table 1a.  No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	equivalent values should be clearly stated.  These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  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').	True widths are not confirmed at this time although all drilling in planned close to perpendicular to interpreted strike of the target lodes.

Diagrams	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.	Diagrams referencing historical data can be found in the body of this report.
Balanced reporting	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.	All older MGV drilling data has previously been reported. Some higher grade historical results may be reported selectively in this release to highlight the follow-up areas for priority drilling. All data pierce points and collars are shown in the diagrams within this release.
Other substantive exploration data	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 – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All material results from geochemical and geophysical surveys and drilling, related to these prospects has been reported or disclosed previously.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to figures in the body of this announcement.
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