

ASX RELEASE 6 July 2020

**ASX: MGV** 

# 85m @ 11.6g/t gold intersected near surface at Starlight

- Further RC drilling at Starlight continues to deliver spectacular gold intercepts near surface including:
  - 85m @ 11.6g/t Au from 7m (20MORC058) including;
    - 8m @ 99.0g/t Au from 7m including;
      - 3m @ 254.2g/t Au from 8m and
    - o 4m @ 45.5g/t Au from 38m and
    - o 6m @ 9.4g/t Au from 86m
  - 68m @ 5.9g/t Au from 21m (20MORC057) including;
    - 8m @ 48.5g/t Au from 21m (20MORC057) including;
      - 1m @ 300.4g/t Au from 22m
  - 9m @ 10.7g/t Au from 52m (20MORC055) including;
    - o 6m @ 15.7g/t Au from 52m
  - 6m @ 32.3g/t Au from 61m (20MORC061) including;
    - o 1m @ 163.3g/t Au from 62m
- The results confirm and extend the near surface, high-grade gold mineralisation where it remains open to the southeast
- Diamond drilling is underway to test the depth extent of the Starlight lode below 200 vertical metres

Musgrave Minerals Ltd (ASX: MGV) ("Musgrave" or "the Company") is pleased to report assay results for a further eight reverse circulation ("RC") drill holes from the current program at the new Starlight gold discovery at Break of Day. Drilling continues to confirm the Starlight discovery and the strong near surface high-grades in multiple individual lodes. Starlight remains open to the south-east and down dip where drilling is continuing. All intercepts reported in the current drilling program are outside the existing Break of Day resource estimate.

The Starlight lode at Break of Day is located on the Company's 100% owned ground at its flagship Cue Gold Project in Western Australia's Murchison district (*Figure 1*). Drilling at Starlight is continuing, with a focus on infilling and extending the high-grade gold mineralisation intersected to date. Drilling will also continue to test for new lodes within the Break of Day and Lena system following the discovery of the new White Light lode located 75m south of Starlight (see MGV ASX release dated 29 June 2020, "New gold lode discovered 75m south of Starlight").

Musgrave Managing Director Rob Waugh said: "Starlight continues to produce stunning gold results in near surface drilling. Further RC drilling is underway to infill and extend the Starlight mineralisation with the aim of completing a JORC resource update late in Q3 2020. Drilling is continuing with two rigs on site and we are confident we can extend Starlight and the new White Light lode and make significant new discoveries in the belt."

To date a total of 45 RC holes of a planned 59 holes have been completed with assay results received for 39 holes. Three diamond drill hole tails and one twin hole have been completed to date with assays pending. All new assay results are shown in Table 1a with further assays expected within two weeks.

The Starlight and White Light mineralised gold lodes lie proximal to the existing Break of Day resource (Figure 2) within separate southeast-northwest parallel mineralised zones approximately 75m apart. Significantly, all the intersections returned from Starlight and White Light sit outside the current resource at Break of Day.

The mineralisation consists of quartz lodes hosted within a foliated and altered basaltic stratigraphic sequence that typically dip steeply to the south (*Figure 3*). Both lodes have a strike extent of over 100m and are open to the south-east (*Figures 3 & 5*) and down plunge.

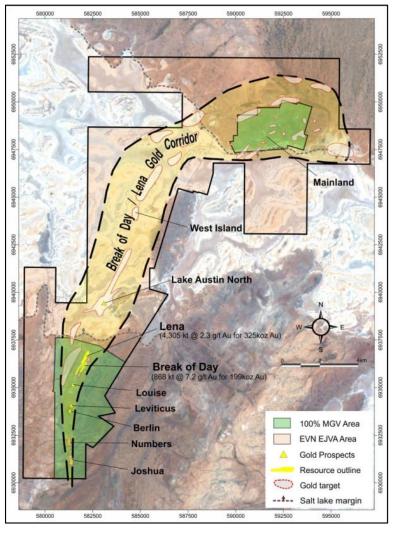


Figure 1: Prospect location plan

# **Discussion of Results**

A combination of six metre composites and one metre individual samples have been analysed from the RC holes drilled in the current program with details defined in Tables 1a and 1b. All 6m composite samples above 0.1g/t Au will be re-submitted for individual 1m sample analysis.

Significant intercepts at Starlight lode:

- o 85m @ 11.6g/t Au from 7m (20MORC058) including;
  - o 8m @ 99.0g/t Au from 7m including;
    - 3m @ 254.2g/t Au from 8m and
  - 4m @ 45.5g/t Au from 38m and
  - o 6m @ 9.4g/t Au from 86m
- 68m @ 5.9g/t Au from 21m (20MORC057) including;
  - o 8m @ 48.5g/t Au from 21m (20MORC057) including;
    - 1m @ 300.4g/t Au from 22m
- 9m @ 10.7g/t Au from 52m (20MORC055) including;
  - o 6m @ 15.7g/t Au from 52m

- o 6m @ 32.3g/t Au from 61m (20MORC061) including;
  - o 1m @ 163.3g/t Au from 62m
- 32m @ 1.2g/t Au from 0m (20MORC054) including;
  - 4m @ 4.6g/t Au from 26m (Hole 20MORC054 collared too far north to intersect main high-grade Starlight lode. Further drilling required)

Significant new results from the White Light lode include:

o 1m @ 22.6g/t Au from 115m (20MORC048)

# **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 (868Kt deposit 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 releases dated 14 July 2017 and 17 February 2020).

This current resource estimate does not include any recent results from the new Starlight and White Light gold discoveries. The updated resource estimate incorporating these results will completed in late Q3 2020.

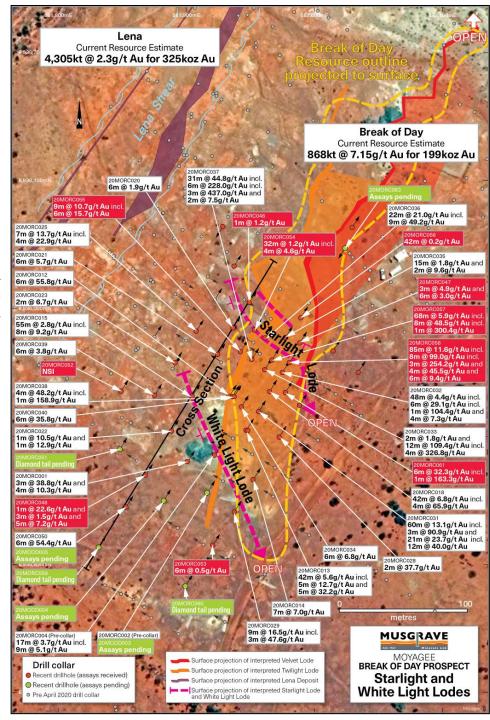


Figure 2: Plan showing surface projection of Starlight and White Light gold lodes, drill collars and recent assay results at Break of Day

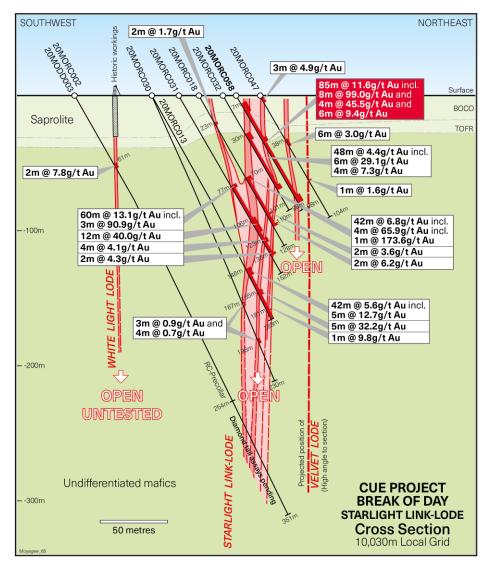


Figure 3: Cross-section of new White Light and Starlight gold lodes at Break of Day

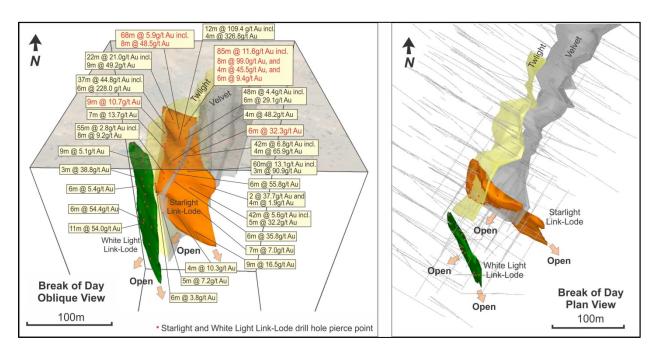


Figure 4: Schematic diagrams showing the location and orientation of the Starlight and White Light gold lodes with respect to the Twilight and Velvet lodes at Break of Day

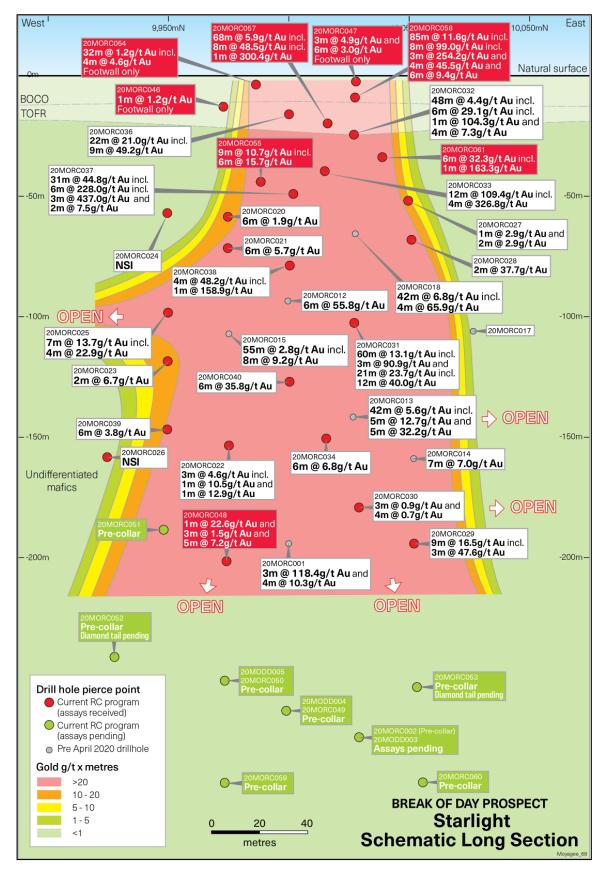


Figure 5: Schematic long section of the Starlight gold lode showing gram x metre contours.

A long section is a vertical section along the strike plane of the mineralisation

### **Ongoing Exploration**

### Musgrave 100% tenements

- Follow-up RC drilling on the Starlight lode at Break of Day is continuing with drilling now 75% complete. Further assays are expected in two-three weeks.
- Additional drilling on the newly discovered White Light lode at Break of Day will commence next week.
- The diamond drilling program at Starlight to test depth extensions to the mineralisation is progressing well with first assays expected in three-four weeks.
- A resource update for Break of Day including Starlight and White Light is planned for late Q3, 2020.

#### **Evolution JV**

• Evolution has approved the FY20-21 budget and the Phase 2 follow-up aircore drilling of high-priority gold targets is scheduled to commence in late July 2020.

#### THE CUE PROJECT

The Cue Project ("the Project") is located in the Murchison district of Western Australia (*Figure 6*) and hosts Mineral Resources (Indicated and Inferred) totalling 6.45Mt @ 3.0g/t gold for 613,000oz contained gold. The Company has defined a +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 Break of Day, Lena and Lake Austin North. Musgrave's intent is to investigate options to best develop a low-cost operation, capable of delivering strong financial returns for its shareholders.

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

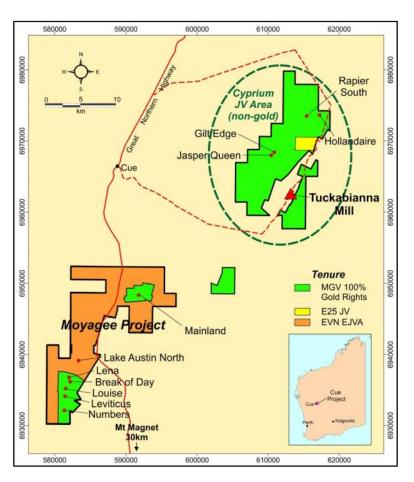


Figure 6: Cue Project location plan and tenure

(Figure 6). The Break of Day, Lena and Mainland areas are excluded from the Earn-in and Exploration Joint Venture with Evolution Mining Ltd.

Cyprium Australia Pty Ltd ("Cyprium") has met the expenditure requirement to earn their 80% interest in the non-gold rights over the northern tenure at Cue including the Hollandaire deposit (Figure 6). Musgrave will retain 100% of the gold rights and a 20% free-carried interest in the nongold rights to the completion of a definitive feasibility study.

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

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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.

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#### Additional JORC Information

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

- 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"
- 6 July 2017, "Excellent Gold Recoveries Achieved from Initial Metallurgical Test Work at Lena"

#### 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 full-time 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 forward-looking 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 RC drill assay intervals from Starlight and White Light lodes at Break of Day

	l		_ 	_				I
Drill Hole ID	Drill Type	Prospect	Sample Type	From (m)	Interval (m)	Au (g/t)	Lode	Comment
20MORC046	RC	Break of Day Starlight	Individual 1m	9	1	1.2	Starlight Link-lode Footwall	Hole collared too far north to fully test Starlight lode
20MORC047	RC	Break of Day Starlight	Individual 1m	2	3	4.9	Starlight Link-lode Footwall	Hole collared too far north to fully test Starlight lode Previously reported 4m composites as 4m @ 3.0g/t Au
		3	Individual 1m	39	6	3.0	Velvet lode	Previously reported 6m composites as 6m @ 4.0g/t Au
			Individual 1m	115	1	22.6	White Light Lode	Previously reported 6m composites as 6m @ 5.4g/t Au
20MORC048	RC	Break of Day Starlight	Individual 1m	161	3	1.5	Unknown lode	Low grade
			Individual 1m	230	5	7.2	Starlight Link-lode	Main lode
20MORC52	RC Pre-collar	Break of Day Starlight	6m Composite		NSI		White Light and Starlight	Hole testing western limit of lodes
20MORC53	RC Pre-collar	Break of Day Starlight	6m Composite	76	6	0.5	White Light	Awaiting 1m individual assays and diamond tale tot test Starlight
20MORC54	RC Break of Day		Combination of composite and individual 1m samples	0	32	1.2	Starlight lode Footwall	Main Starlight lode not tested Hole collared too far north to fully test lode
		Starlight	including	26	4	4.6	Starlight lode Footwall	Main Starlight lode not tested Hole collared too far north to fully test lode
20MORC055	RC	Break of Day	Individual 1m	52	9	10.7	Starlight Link-lode	Main Starlight lode
250110000		Starlight	Including	52	6	15.7	January Ellin 1000	Main Starlight lode
20MORC056	RC	Break of Day Starlight	6m Composite	17	42	0.2		Hole collared too far north to fully test Starlight lode
			Individual 1m	21	68	5.9		Broad interval
20MORC057	RC	Break of Day Starlight	Including	21	8	48.5	Starlight lode	Main high-grade lode
			Including	22	1	300.4		g g.====
			Mostly individual 1m samples with one 6m composite	7	85	11.6	Starlight lode	Broad interval Multiple high-grade zones
	DMORC058 RC Break of Day Starlight	including 7	7	8	99.0	Main Starlight lode	Van hinh mada	
20MORC058			including	8	3	254.2	Main Starlight lode	Very high-grade
		and	38	4	45.5	Starlight lode middle	High-grade	
			and 6m composite	86	6	9.4	Starlight lode Footwall	High-grade Awaiting 1m individual assays
20MORC061	RC	Break of Day	Individual 1m	61	6	32.3	Main Starlight lode	High-grade
2557(0001		Starlight	including	62	1	163.2	Main Starlight lode	Very high-grade

Table 1b: Summary of Starlight MGV RC Drill Collars

		able 10: <b>3u</b>	Easting	Northing	Azimuth	Dip	RL	Total Depth	
Drill Hole ID	Drill Type	Prospect	(m)	(m)	(deg)	(deg)	(m)	(m)	Assays
20MORC004	RC	Break of Day Starlight	581922	6935885	30	-60	418	272	Reported previously
20MORC020	RC	Break of Day Starlight	581936	6935984	30	-60	418	56	Reported previously
20MORC021	RC	Break of Day Starlight	581924	6935964	30	-60	418	110	Reported previously
20MORC022	RC	Break of Day Starlight	581888	6935904	30	-60	418	212	Reported previously
20MORC023	RC	Break of Day Starlight	581891	6935957	30	-60	418	164	Reported previously
20MORC024	RC	Break of Day Starlight	581922	6936007	30	-60	418	92	Reported previously
20MORC025	RC	Break of Day Starlight	581907	6935982	30	-60	418	158	Reported previously
20MORC026	RC	Break of Day Starlight	581875	6935978	30	-60	418	248	Reported previously
20MORC027	RC	Break of Day Starlight	581988	6935924	30	-60	418	146	Reported previously
20MORC028	RC	Break of Day Starlight	581972	6935899	30	-60	418	170	Reported previously
20MORC029	RC	Break of Day Starlight	581937	6935841	30	-60	418	262	Reported previously
20MORC030	RC	Break of Day Starlight	581947	6935905	30	-70	418	230	Reported previously
20MORC031	RC	Break of Day Starlight	581956	6935919	30	-60	418	152	Reported previously
20MORC032	RC	Break of Day Starlight	581974	6935950	30	-60	418	98	Reported previously
20MORC033	RC	Break of Day Starlight	581961	6935952	30	-60	418	122	Reported previously
20MORC034	RC	Break of Day Starlight	581943	6935923	30	-60	418	200	Reported previously
20MORC035	RC	Break of Day Starlight	581977	6935977	30	-60	418	200	Reported previously
20MORC036	RC	Break of Day Starlight	581961	6935977	30	-60	418	50	Reported previously
20MORC037	RC	Break of Day Starlight	581951	6935960	30	-60	418	102	Reported previously
20MORC038	RC	Break of Day Starlight	581934	6935933	30	-57	418	95	Reported previously
20MORC039	RC	Break of Day Starlight	581875	6935932	30	-60	418	200	Reported previously
20MORC040	RC	Break of Day Starlight	581935	6935930	30	-68	418	164	Reported previously
20MORC041	RC	Break of Day Starlight	581928	6936064	30	-60	418	104	Reported previously
20MORC042	RC	Break of Day Starlight	582034	6935950	30	-60	418	98	Reported previously
20MORC043	RC	Break of Day Starlight	582014	6935967	30	-60	418	104	Reported previously
20MORC044	RC	Break of Day Starlight	582029	6936063	30	-60	418	200	Reported previously
20MORC045	RC	Break of Day Starlight	581937	6936033	30	-60	418	98	Reported previously
20MORC046	RC	Break of Day Starlight	581949	6936005	30	-60	418	92	Reported above
20MORC047	RC	Break of Day Starlight	581988	6935973	30	-60	418	92	Reported above
20MORC048	RC	Break of Day Starlight	581868	6935870	30	-60	418	260	Reported above
20MORC049 20MODD004	RC Pre-collar Diamond tail	Break of Day Starlight	581882	6935850	30	-60	418	230 330.0	Diamond tail pending
20MORC050 20MODD005	RC Pre-collar Diamond tail	Break of Day Starlight	581853	6935845	30	-60	418	248 366.7	Diamond tail pending
20MORC051	RC	Break of Day Starlight	581848	6935890	30	-60	418	300	Diamond tail pending
20MORC052	RC Pre-collar	Break of Day Starlight	581849	6935935	30	-60	418	182	Diamond tail pending
20MORC053	RC Pre-collar	Break of Day Starlight	581920	6935815	30	-60	418	218	Diamond tail pending
20MORC054	RC	Break of Day Starlight	581953	6935983	30	-60	418	74	Reported above
20MORC055	RC	Break of Day Starlight	581942	6935966	30	-60	418	92	Reported above
20MORC056	RC	Break of Day Starlight	581988	6935993	30	-60	418	80	Reported above
20MORC057	RC	Break of Day Starlight	581967	6935960	30	-60	418	104	Reported above
20MORC058	RC	Break of Day Starlight	581980	6935958	30	-60	418	98	Reported above

20MORC059	RC	Break of Day Starlight	581832	6935813	30	-60	418	290	Assays pending
20MORC060	RC Pre-collar	Break of Day Starlight	581899	6935783	30	-60	418	230	Assays pending
20MORC061	RC	Break of Day Starlight	581977	6935934	30	-60	418	86	Reported above
20MORC002 20MODD003	RC Pre-collar Diamond tail	Break of Day Starlight	581916	6935856	30	-60	418	254 351.6	Diamond tail pending
20MORC062	RC Pre-collar	Break of Day Starlight	581899	6935783	30	-60	418	230	Assays pending
20MORC063	RC	Break of Day Starlight	582024	6936047	210	-60	418	280	Assays pending

#### Notes to Tables

- 1. 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 but are expected to be 50%-70% of intercept widths.
- 2. In 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.
- 3. All samples are analysed using 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
- 4. g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept)
- 5. Higher grade intersections are generally calculated over intervals >1.0g/t Au where zones of internal dilution are not weaker than 2m < 0.5g/t Au. Bulked thicker intercepts may have more internal dilution between high-grade zones.
- 6. All drill holes referenced in this announcement are reported in Tables 1a and 1b above.
- 7. Drill type; AC = Aircore, RC = Reverse Circulation, Diam = Diamond
- 8. Coordinates are in GDA94, MGA Z50

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# 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 handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Current RC drill program  RC 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 cyclone splitter. Individual 1m samples are submitted for initial assays where significant obvious mineralisation is intersected.  Historical sampling criteria are unclear for pre 2009 drilling.  MGV sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals.  All Reverse circulation (RC) samples are split to 1-3kg in weight through a cyclone splitter on the drill rig for 1m drill intervals.  A Thermo Scientific Niton GoldD XL3+ 950 Analyser is available on site to aid geological interpretation. No XRF results are reported.
	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 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 submarine nodules) may warrant disclosure of detailed information.	Current RC drill program  RC samples are composited at 6m intervals using a stainless steel scoop with all intervals over 0.1g/t Au resampled at 1m intervals by cyclone splitter. The 3kg samples are pulverised to produce a 50g charge for fire assay with ICP-MS finish for gold. Screen fire assay is undertaken on select high gold samples.  All one metre samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each 6m rod. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverization stage.  The sample size is deemed appropriate for the grain size of the material being sampled.  Samples are sent to the Genalysis – Intertek laboratory in Maddington. Samples are pulverized to 85% passing -75um and composite samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit).

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).	Current RC drill program  RC drilling was used in this MGV program. Challenge Drilling Pty Ltd utilised a KWL 350 drill rig with 1100/350 on-board compressor with an Atlas Copco 1,000 cfm auxiliary, Hurricane 2,400cfm, 1,000 psi booster. Four inch RC drill rods with a 5.75" face hammer were utilised. Down hole surveys were undertaken at a maximum of 30m intervals using a north seeking gyroscopic tool not subject to magnetic interference. A total of more than 180 RC holes and 14 diamond drill holes have been drilled by MGV at Break of Day & Lena. Historically Silver Lake Resources Ltd (SLR) undertook RC drilling at Break of Day and Lena between 2010 and 2013 with a number of companies intermittently drilling prior to 2009 including Perilya Mines Ltd (1991-2007). 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.	Current RC drill program  RC 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 RC drilling. A cyclone splitter was utilised to split 1-3kg of sample by weight. The splitter is air blasted clean at the end of each 6m rod.  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 appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All geological, structural and alteration related observations are stored in the database.
	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.	No diamond drilling has yet commenced at Starlight
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are composited at 4m or 6m intervals using a stainless steel scoop with all intervals over 0.1g/t Au resampled at 1m cyclone split intervals.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill sample preparation and precious metal analysis is undertaken by a registered laboratory (Genalysis – Intertek). 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.  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 lithology.

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.  For geophysical tools, spectrometers, handheld XRF	On composite RC samples and 1m cyclone split samples, analysis is undertaken by Intertek-Genalysis (a registered laboratory), with 50g fire assay with ICP-MS finish undertaken for gold. A screen fire re-assay is undertaken on select high-grade gold samples. This is also the technique used for sampling of diamond core.  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.  In diamond core individual samples are analysed through potential gold mineralised zones. Analysis is by 50g fire assay with ICP-MS finish for gold.  No geophysical tools were used to estimate mineral or element
	instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (e.g.	percentages. Musgrave utilise a Thermo Scientific Niton GoldD XL3+ 950 Analyser to aid geological interpretation.  MGV field QC procedures involve the use of certified reference
Verification of	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	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
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 points	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.	All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of >±5 metres.  Down hole surveys are undertaken using the axis digital clinometer and gyroscope down hole tool in either continuous reading mode or at regular 30m intervals.
	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 and historical drill hole collars and RL's are surveyed by qualified surveyors in most instances in the resource areas post drilling. Differential GPS is used to survey drill hole collars pre-drilling with an accuracy of +-0.01 metre including RL's. Drill hole collars are planned and set up using standard GPS (accuracy +-2m).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings are used to adequately test targets and are determined from geochemical, geophysical and geological data together with historical drilling information.  At Starlight, a 20-50m spaced drill plan is used for the 3 dimensional pierce point projection with mineralisation with RC drilling in the top 200m. Drill hole spacings are generally variable and dependent on geology, continuity, resource status and geological understanding and confidence.  At Lena a general pattern of approximately 25-75m drill spacings on 25m spaced sections has been completed through multiple phases over many years.  Historical drill hole spacings at Break of Day and Lena are variable although Perilya, SLR and MGV drilled a number of holes at approximately 12.5m, 25m or 50m sections from 1991-2019.
	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.	There is a current JORC 2012 Mineral Resource at Break of Day and Lena defined by Musgrave Minerals Ltd.  The Mineral Resources estimate at Break of Day and Lena was prepared and disclosed in accordance with the 2012 Edition of the Australian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012).  For further details refer to MGV ASX announcement 14 July 2017, "Resource Estimate Exceeds 350koz Au" and 17 February 2020, "Lena Mineral Resource more than doubles and gold grade increases".

	Whether sample compositing has been applied.	Six metre sample compositing has also been undertaken using a stainless steel scoop for all RC drill holes in the current program. Composite sampling is undertaken using a stainless steel spear (trowel) 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. Historical QA/QC procedures are unclear for pre 2009 drilling.
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. The mineralisation at Starlight is interpreted to dip between 50-85 degrees to the south. The true width of drill intersections at Starlight are interpreted to be between 50-70% of the drill intersection width.
	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). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	During the resource estimates an external review of the geological interpretation, data and modelling techniques was undertaken by the resource consultant.

**Section 2 Reporting of Exploration Results** 

Criteria	Explanation	Commentary
Mineral tenement	Type, reference name/number, location and ownership	Musgrave Minerals secured 100% of the Moyagee Project area
and land tenure	including agreements or material issues with third	in August 2017 (see MGV ASX announcement 2 August 2017:
status	parties such as joint ventures, partnerships, overriding	"Musgrave Secures 100% of Key Cue Tenure") from Silver Lake
	royalties, native title interests, historical sites,	Resources Ltd.
	wilderness or national park and environmental settings.	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 present
		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 sign
		an \$18 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	The tenements are in good standing and no known
	along with any known impediments to obtaining a	impediments exist.
	licence to operate in the area.	
Exploration done by	Acknowledgment and appraisal of exploration by other	Historical drilling, soil sampling and geophysical surveys have
other parties	parties.	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 drill 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 and intercept and the clearly extended.	No cut-off has been applied to any sampling. Reported intervals 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	equivalent values should be clearly stated.  These relationships are particularly important in the	True widths are not confirmed but all drilling is planned close to
between mineralisation widths and intercept lengths	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').	perpendicular to interpreted targets.
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. Higher grade historical results are 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.