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## High-grade drilling results continue at White Heat-Mosaic

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- **Drilling at White Heat-Mosaic, part of the high-grade Break of Day trend, returns further high-grade gold results with extensional RC drilling outside the current Mineral Resource boundary intersecting:**
  - **4m @ 7.6g/t Au from 2m (22MORC253), extending the high-grade closer to surface**
- **Additionally, infill RC drill intersections confirming grade and continuity include:**
  - **5m @ 80.2g/t Au from 12m (22MORC251), including;**
    - **2m @ 194.5g/t Au from 12m**
  - **8m @ 19.8g/t Au from 37m (22MORC242), including;**
    - **3m @ 49.7g/t Au from 38m**
  - **5m @ 43.9g/t Au from 89m (22MORC248), including;**
    - **1m @ 176g/t Au from 89m**
  - **7m @ 8.1g/t Au from 66m (22MORC236), including;**
    - **1m @ 49.4g/t Au from 69m**
  - **3m @ 17.6g/t Au from 3m (22MORC243)**
  - **2m @ 20.0g/t Au from 96m (22MORC254)**
- **Assay results are pending for additional infill and extensional RC drilling at Big Sky**
- **Diamond drilling is underway and RC drilling will recommence at the Waratah prospect in mid-November**
- **The Stage 1 Pre-feasibility Study covering the initial years of production for the Cue Gold Project is scheduled for completion in Q1 2023**

Musgrave Minerals Ltd (ASX: **MGV**) (“Musgrave” or “the Company”) is pleased to report further high-grade gold assay results from reverse circulation (“RC”) and diamond drilling along the Break of Day

Trend at the White Heat-Mosaic deposit. The results are from a combination of infill and extensional drilling and highlight the very high-grade nature of the near-surface mineralisation. The White Heat-Mosaic deposit with its near-surface, high-grades is expected to be a key component of future project development at Cue. The results continue to reflect the unique potential of Musgrave's 100% owned ground at its flagship Cue Gold Project in Western Australia's Murchison district (*Figure 1*).

Musgrave Managing Director Rob Waugh said: "These are another strong set of results and confirm the exceptional high grades in the near-surface gold mineralisation at White Heat-Mosaic. The deposits, including White Heat-Mosaic along the high-grade Break of Day trend, will be a cornerstone of future development of the Cue Gold Project."

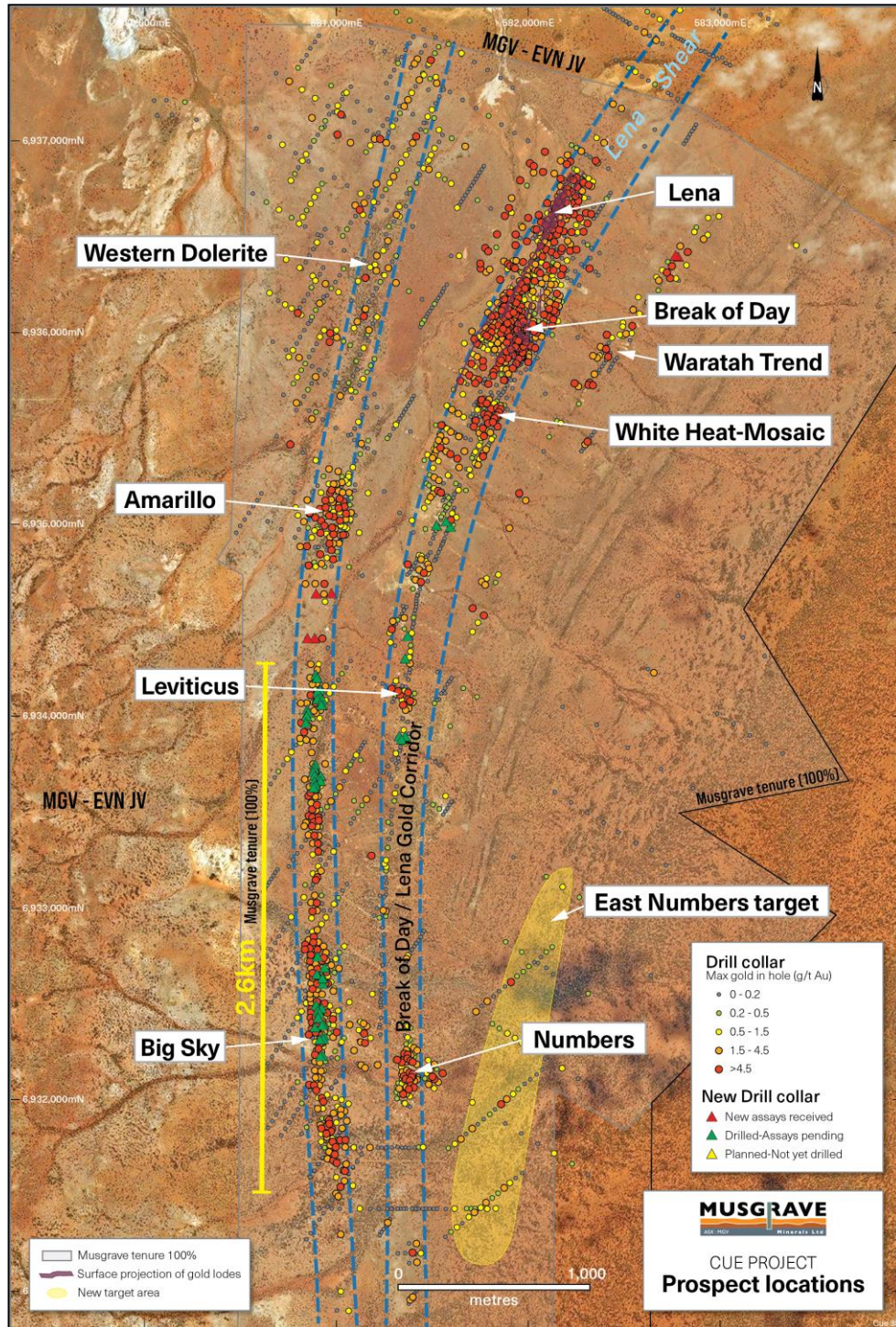


Figure 1: Regional plan showing drill hole collars and significant prospect locations



## Break of Day Trend White Heat-Mosaic Deposit

The Break of Day Trend has a total Mineral Resource Estimate of **982kt @ 10.4g/t Au for 327koz gold** with 70% of this in the higher confidence Indicated Resource category (see *MGV ASX announcement dated 31 May 2022, "Cue Mineral Resource Increases to 927,000oz"*).

A subset of this inventory (**185kt @ 11.0g/t Au for 65koz gold**) defines the White Heat-Mosaic deposit. The deposit, only 300m south of Break of Day (797kt @ 10.2g/t Au for 262koz gold) is currently modelled to a maximum depth of 160m.

This recent drilling (not yet incorporated into the resource estimate) confirms the near surface and high-grade endowment along this trend, which is characterised by quartz lodes within a high-titanium basalt stratigraphic unit. The drilling was aimed at better defining the mineralised limits and high-grade plunge orientations at the White Heat-Mosaic deposit (*Figures 2-4*). Full results are shown in Tables 1a and 1b.

New RC drill intersections outside the current Mineral Resource boundary on the Mosaic lode include:

- 4m @ 7.6g/t Au from 2m (22MORC253) extending the Mosaic mineralisation up-dip to within 2m of surface.

New RC intersections within the current Mineral Resource boundary (infill drilling) include:

- 5m @ 80.2g/t Au from 12m (22MORC251), including;
  - 2m @ 194.5g/t Au from 12m
- 8m @ 19.8g/t Au from 37m (22MORC242), including;
  - 3m @ 49.7g/t Au from 38m
- 5m @ 43.9g/t Au from 89m (22MORC248), including;
  - 1m @ 176g/t Au from 89m
- 7m @ 8.1g/t Au from 66m (22MORC236), including;
  - 1m @ 49.4g/t Au from 69m
- 3m @ 17.6g/t Au from 3m (22MORC243)
- 2m @ 20.0g/t Au from 96m (22MORC254)
- 4m @ 5.3g/t Au from 43m (22MORC249)
- 2m @ 4.9g/t Au from 17m (22MORC239)

The mineralisation remains open down plunge (*Figure 3*) but appears to be weakening at depth. Further extensional drilling to confirm shoot and plunge geometries is currently being planned.

Minor splay lodes are evident from drilling but are expected to have limited strike extent. Results for diamond hole (22MODD030) into the Mosaic lode were received where low grade mineralisation was intersected in the quartz vein at the projected depth, but outside the high-grade plunge zone (*Table 2a and 2b*).



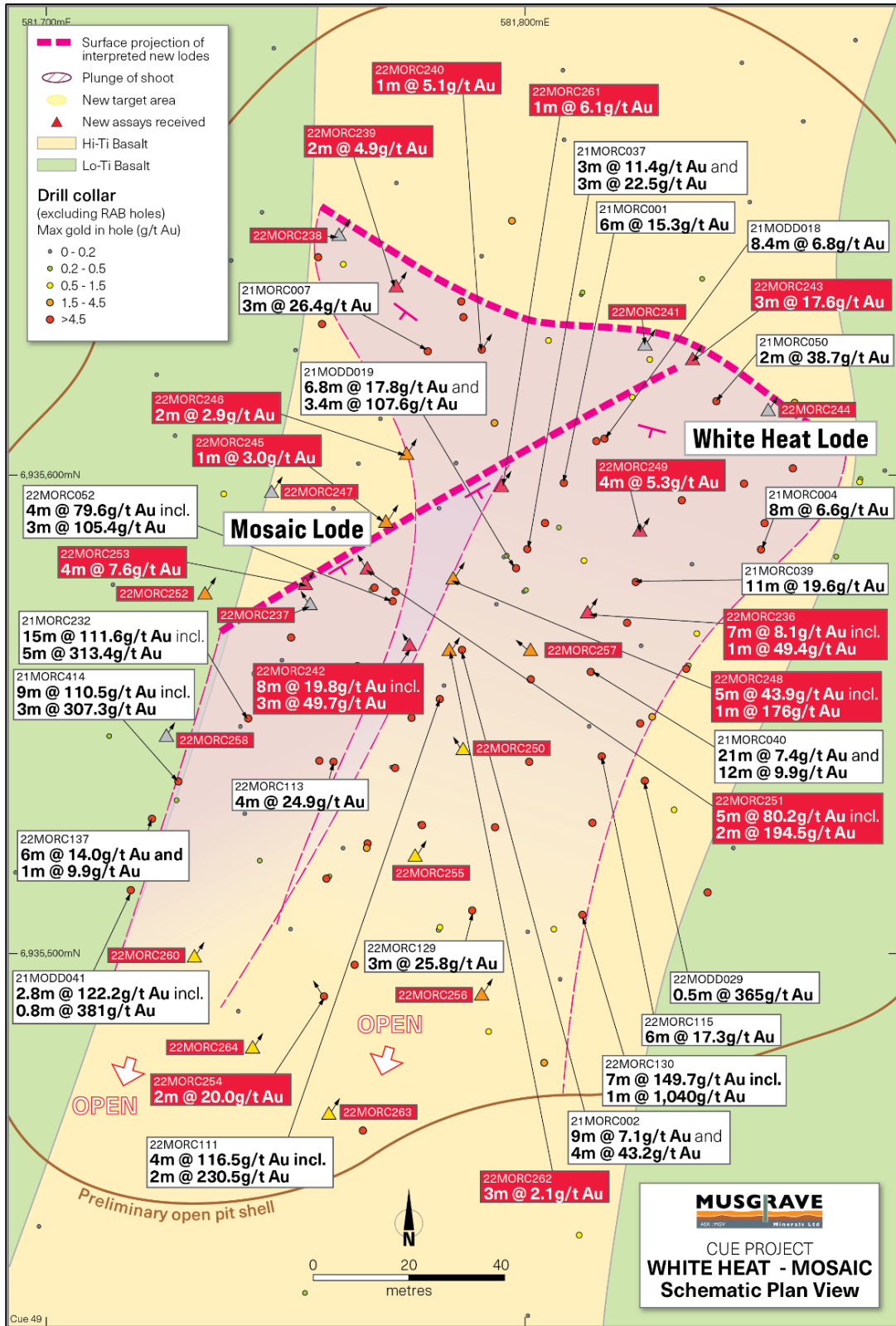


Figure 2: White Heat-Mosaic prospect plan showing drill hole collars and recent assay results.



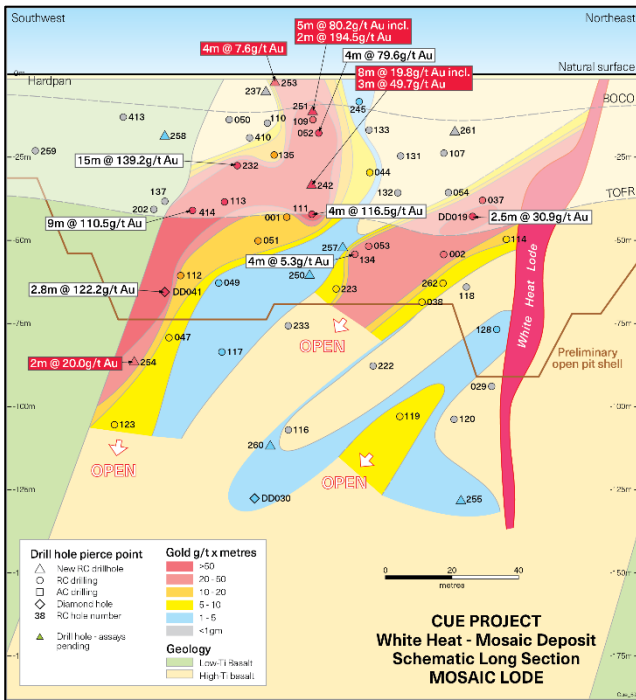


Figure 3: Long-section through the Mosaic Lode showing drill hole pierce points and recent assay results. Note: Only intersections in the Mosaic Lode (not White Heat Lode) are depicted on this long-section

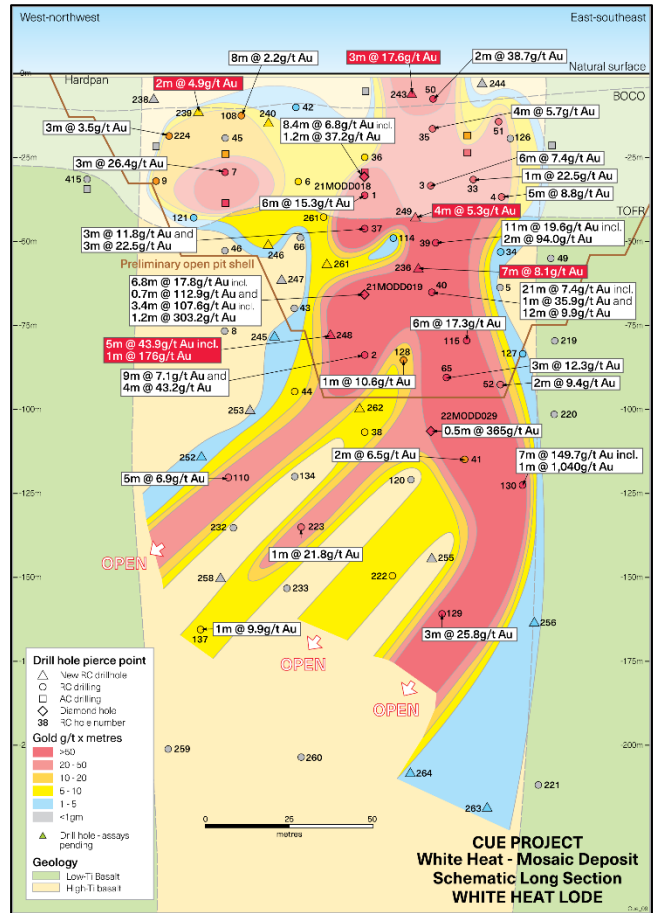


Figure 4: Long-section through the White Heat Lode showing drill hole pierce points and recent assay results. Note: Only intersections in the White Heat Lode (not Mosaic Lode) are depicted on this long-section

## Cue Project

The Cue Gold Project is located approximately 30km south of the township of Cue in the Murchison district of Western Australia. The southern area gold deposits are only 5km from the Great Northern Highway, approximately 600km north of Perth on tenure wholly owned by Musgrave.

The current Mineral Resource Estimate for the Cue Gold Project totals 12.3Mt @ 2.3g/t Au for 927koz including the Break of Day High-Grade Trend (982kt @ 10.4g/t Au for 327koz contained gold) and the Moyagee Western Trend (9.8Mt @ 1.7g/t Au for 541koz contained gold) both in the southern area of the project (see *MGV ASX announcement dated 31 May 2022, "Cue Mineral Resource Increases to 927,000oz"*). The new gold discoveries at Amarillo and along the Waratah trend are all outside the existing resource areas.

The Company is working towards delivery of a Stage 1 Pre-feasibility Study (PFS) in Q1 2023 with focus on the technical and financial viability of the early years of the Cue Gold Project. The study will focus on the Project's current Indicated Mineral Resources whilst exploration and resource conversion drilling will continue, aiming to extend the mine life beyond Stage 1.



## **Ongoing Activities**

### **Musgrave 100% tenements**

- Assay results for 51 RC drill holes from extensional and infill drilling at the Big Sky deposit are pending.
- Diamond drilling for geotechnical analysis to better define pit wall stability has commenced at Break of Day, White Heat and Big Sky.
- Follow-up RC drilling at the Waratah, Amarillo and East Numbers targets is currently scheduled to commence in mid-November.
- Metallurgical test work on the Big Sky and White Heat-Mosaic deposits is underway with preliminary gold recovery data expected in December.
- Stage 1 PFS activities for the Cue Gold Project are well advanced, with completion expected in Q1 2023.

### **Evolution JV**

- Diamond drilling to test the basement beneath regolith gold mineralisation on Lake Austin is continuing with on-going focus on the West Island target.
- The current phase of regional aircore drilling to identify additional targets for diamond drill testing is near completion.
- Assay results are pending for multiple drill holes (diamond and aircore).

Authorised for release by the Board of Musgrave Minerals Limited.

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***About Musgrave Minerals***

*Musgrave Minerals Limited is an active Australian gold explorer and developer. Musgrave's mission is to safely and responsibly deliver exploration success and advance development opportunities to build a profitable gold mining business at Cue for the benefit of our shareholders and the communities within which we operate*

*The Cue Project in the Murchison region of Western Australia is an advanced gold project. Musgrave has had significant exploration success at Cue with the ongoing focus on increasing the gold resources through discovery and extensional drilling to underpin studies that will demonstrate a viable path to near-term development. Musgrave also holds a large exploration tenement packages near Mt Magnet in Western Australia and in the Ni-Cu-Co prospective Musgrave Province of 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:

- 28 October 2022, "Quarterly Activities and Cashflow Report"
- 20 October 2022, "Gold intersections continue at West Island, Cue JV"
- 7 October 2022, "Annual Report to Shareholders"
- 23 September 2022, "Full Year Statutory Accounts"
- 19 September 2022, "High-grade gold at Waratah and new regional targets at Cue"
- 30 August 2022, "Further High Grade Gold Intersected at Big Sky"
- 3 August 2022, "Diggers and Dealers Presentation"
- 2 August 2022, "Bonanza Grades from Further Drilling at White Heat-Mosaic"
- 21 July 2022, "Company Presentation – Noosa Mining Conference"
- 21 July 2022, "Further high-grade gold at West Island, Cue JV"
- 29 June 2022, "High grade gold at Amarillo and new regional targets"
- 21 June 2022, "Appointment of General Manager - Development"
- 31 March 2022, "Musgrave consolidates its position in the Murchison"
- 31 May 2022, "Cue Mineral Resource increases to 927,000 ounces"
- 21 April 2022, "Thick basement gold intersections at West Island, Cue JV"
- 5 April 2022, "High grades confirm Big Sky's upside potential"
- 31 March 2022, "Musgrave consolidates its position in the Murchison"
- 25 March 2022, "Strong drill results at Amarillo"
- 15 March 2022, "Further near-surface high grades intersected at Mosaic"
- 10 March 2022, "Half yearly report and accounts"
- 2 February 2022, "Exceptional gold grades near-surface at new Mosaic Lode"
- 27 January 2022, "High-grade gold intersected at West Island, Cue JV"
- 6 January 2022, "New high-grade gold trend identified in regional RC program"
- 15 December 2021, "High grades continue at Big Sky"
- 1 December 2021, "New lodes identified. Stunning high-grade intercept at Cue"
- 27 October 2021, "Bonanza hit highlights high-grade potential at Big Sky"
- 12 October 2021, "Thick aircore intercepts enhance West Island Prospect"
- 13 September 2021, "More thick intervals of near-surface gold at Target 14 and Big Sky"
- 16 August 2021, "Bonanza gold grades at White Heat"
- 12 August 2021, "Big Sky delivers more near-surface gold"
- 19 July 2021, "Significant gold intersections enhance Big Sky"
- 30 June 2021, "High-grade gold at West Island target – EVN JV, Cue"
- 18 June 2021, "Thick gold intersections in RC drilling at Big Sky"
- 25 May 2021, "Further RC drill results from White Heat and Numbers prospects"
- 17 May 2021, "Big Sky gold mineralisation strike length more than doubled"
- 21 April 2021, "New high-grade gold results at Target 14, Cue"
- 8 April 2021, "New Big Sky target extends high-grade gold anomaly to >1.2km"
- 19 March 2021, "High grades continue at White Heat, Cue"
- 8 March 2021, "New Gold Corridor Identified at Cue"
- 24 February 2021, "Outstanding high-grade gold at White Heat, Cue"
- 4 February 2021, "Appointment of Non-executive Director"
- 27 January 2021, "New basement gold targets defined on Evolution JV"
- 19 January 2021, "High-grade near-surface gold extended at Target 5, Cue"
- 14 December 2020, "\$18M raising to fund resource growth and commence PFS"
- 9 December 2020, "High-grade near surface gold at Target 17, Cue"
- 3 December 2020, "Scout drilling intersects high-grade gold and defines large gold zones under Lake Austin, Evolution JV"
- 23 November 2020, "New White Heat discovery and further regional drilling success"
- 11 November 2020, "Break of Day High-Grade Mineral Resource Estimate"
- 2 November 2020, "Exceptional metallurgical gold recoveries at Starlight"
- 8 October 2020, "Drilling hits high-grade gold at new target, 400m south of Starlight"
- 19 August 2020, "Starlight gold mineralisation extended"
- 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"
- 21 April 2020, "High grades confirmed at Starlight"
- 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"
- 28 February 2020, "High-grade gold intersected Link-lode, Break of Day"
- 17 February 2020, "Lena Resource Update"
- 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"
- 17 September 2019, "Musgrave and Evolution sign an \$18 million Earn-In JV and \$1.5M placement to accelerate exploration at Cue"
- 28 May 2019, "Scout Drilling Extends Gold Zone to >3km at Lake Austin North"
- 16 August 2017, "Further Strong Gold Recoveries 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 and to the activity being undertaken 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 new MGVC RC drill hole assay intersections at White Heat-Mosaic**

Drill Hole ID	Drill Type	Deposit	Sample Type	EOH	From (m)	Interval (m)	Au (g/t)	Comment
22MORC236	RC	White Heat-Mosaic	1m Individual	99	66	7	8.1	High-grade gold mineralization in fresh rock White Heat Lode infill
			Including		69	1	49.4	
22MORC237	RC	White Heat-Mosaic	1m Individual	24	NSI			Outside existing resource White Heat Lode No extension to west
22MORC238	RC	White Heat-Mosaic	1m Individual	29	NSI			Outside existing resource Mosaic Lode No extension to west
22MORC239	RC	White Heat-Mosaic	1m Individual	34	17	2	4.9	Gold mineralization in regolith White Heat Lode extended up-dip
22MORC240	RC	White Heat-Mosaic	1m Individual	44	20	1	5.1	Gold mineralization in regolith White Heat Lode infill
22MORC241	RC	White Heat-Mosaic	1m Individual	24	NSI			Outside existing resource Drilled above White Heat Lode
22MORC242	RC	White Heat-Mosaic	1m Individual	54	37	8	19.8	High-grade gold mineralization in regolith White Heat Lode infill
			Including		38	3	49.7	
22MORC243	RC	White Heat-Mosaic	1m Individual	19	3	3	17.6	High-grade gold mineralization in regolith White Heat Lode infill
22MORC244	RC	White Heat-Mosaic	1m Individual	19	NSI			Outside existing resource White Heat Lode infill – lode steep than interpreted. May have missed lode.
22MORC245	RC	White Heat-Mosaic	1m Individual	104	88	1	3.0	Gold mineralization in fresh rock White Heat Lode not extended to west
22MORC246	RC	White Heat-Mosaic	1m Individual	84	59	2	2.9	Gold mineralization in fresh rock White Heat Lode extended
22MORC247	RC	White Heat-Mosaic	1m Individual	109	NSI			No significant intercept White Heat Lode not extended to west
22MORC248	RC	White Heat-Mosaic	1m Individual	109	25	1	1.2	Gold mineralization in regolith Outside of known lodes
			and		42	1	2.0	Gold mineralization in regolith Mosaic Lode
			and		50	2	1.5	Gold mineralization in regolith Outside of known lodes
			and		89	5	43.9	High-grade gold mineralization in fresh rock
			including		89	1	176	White Heat Lode high-grade extended to west
22MORC249	RC	White Heat-Mosaic	1m Individual	64	43	4	5.3	Gold mineralization in regolith White Heat Lode infill
22MORC250	RC	White Heat-Mosaic	1m Individual	84	71	1	1.0	Gold mineralization in fresh rock Mosaic Lode infill
22MORC251	RC	White Heat-Mosaic	1m Individual	24	12	5	80.2	High-grade gold mineralization in regolith Mosaic Lode infill
			including		12	2	194.5	
22MORC252	RC	White Heat-Mosaic	1m Individual	154	77	1	2.8	Weak gold mineralization in fresh rock outside of known lodes
			and		132	1	3.0	Gold mineralization in fresh rock White Heat Lode
22MORC253	RC	White Heat-Mosaic	1m Individual	144	2	4	7.6	High-grade gold mineralization in regolith Mosaic Lode extension up-dip
22MORC254	RC	White Heat-Mosaic	1m Individual	124	96	2	20.0	High-grade gold mineralization in regolith Mosaic Lode extending high-grade down-dip
22MORC255	RC	White Heat-Mosaic	1m Individual	189	87	1	1.3	Low grade gold White Heat Lode not extended at depth
22MORC256	RC	White Heat-Mosaic	1m Individual	219	124	2	1.5	Gold mineralization in fresh rock White Heat Lode not extended at depth
			and		190	1	2.0	Gold mineralization in fresh rock White Heat Lode not extended to east
22MORC257	RC	White Heat-Mosaic	1m Individual	139	63	1	2.1	Weak gold mineralisation testing splay lode limited strike
22MORC258	RC	White Heat-Mosaic	1m Individual	219	62	1	1.7	Weak gold mineralisation testing splay lode limited strike
22MORC259	RC	White Heat-Mosaic	1m Individual	269	NSI			No significant intercept White Heat Lode not extended at depth
22MORC260	RC	White Heat-Mosaic	1m Individual	264	126	1	1.2	Weak gold mineralisation at depth White Heat Lode not extended at depth
22MORC261	RC	White Heat-Mosaic	1m Individual	74	30	1	2.1	Weak gold mineralization in regolith
			1m Individual		54	1	6.1	Gold mineralization in fresh rock Edge of White Heat lode
22MORC262	RC	White Heat-Mosaic	1m Individual	124	108	3	2.1	Gold mineralization in fresh rock White Heat Lode infill
22MORC263	RC	White Heat-Mosaic	1m Individual	289	256	1	1.0	Weak gold mineralization at depth White Heat Lode not extended at depth
22MORC264	RC	White Heat-Mosaic	1m Individual	289	246	1	2.0	Weak gold mineralization at depth White Heat Lode not extended at depth

**Table 1b: Summary of MGV drill collars from current RC drill program**

Drill Hole ID	Drill Type	Deposit	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
22MORC236	RC	White Heat-Mosaic	581813	6935571	32	-59	421	99	Assays results in table above
22MORC237	RC	White Heat-Mosaic	581755	6935573	329	-59	420	24	Assays results in table above
22MORC238	RC	White Heat-Mosaic	581761	6935650	32	-59	420	29	Assays results in table above
22MORC239	RC	White Heat-Mosaic	581773	6935639	32	-59	420	34	Assays results in table above
22MORC240	RC	White Heat-Mosaic	581791	6935626	32	-59	420	44	Assays results in table above
22MORC241	RC	White Heat-Mosaic	581825	6935627	32	-59	420	24	Assays results in table above
22MORC242	RC	White Heat-Mosaic	581776	6935564	328	-59	421	54	Assays results in table above
22MORC243	RC	White Heat-Mosaic	581835	6935624	32	-59	420	19	Assays results in table above
22MORC244	RC	White Heat-Mosaic	581851	6935613	32	-59	421	19	Assays results in table above
22MORC245	RC	White Heat-Mosaic	581771	6935590	32	-59	420	104	Assays results in table above
22MORC246	RC	White Heat-Mosaic	581775	6935604	32	-59	420	84	Assays results in table above
22MORC247	RC	White Heat-Mosaic	581747	6935596	32	-59	420	109	Assays results in table above
22MORC248	RC	White Heat-Mosaic	581785	6935578	32	-59	421	109	Assays results in table above
22MORC249	RC	White Heat-Mosaic	581824	6935588	32	-59	421	64	Assays results in table above
22MORC250	RC	White Heat-Mosaic	581787	6935542	328	-59	421	84	Assays results in table above
22MORC251	RC	White Heat-Mosaic	581767	6935580	328	-59	420	24	Assays results in table above
22MORC252	RC	White Heat-Mosaic	581733	6935575	32	-59	420	154	Assays results in table above
22MORC253	RC	White Heat-Mosaic	581754	6935577	32	-59	420	144	Assays results in table above
22MORC254	RC	White Heat-Mosaic	581758	6935491	328	-59	422	124	Assays results in table above
22MORC255	RC	White Heat-Mosaic	581777	6935520	32	-59	421	189	Assays results in table above
22MORC256	RC	White Heat-Mosaic	581791	6935491	32	-59	422	219	Assays results in table above
22MORC257	RC	White Heat-Mosaic	581801	6935563	310	-59	421	139	Assays results in table above
22MORC258	RC	White Heat-Mosaic	581725	6935545	32	-59	421	219	Assays results in table above
22MORC259	RC	White Heat-Mosaic	581689	6935523	32	-59	421	269	Assays results in table above
22MORC260	RC	White Heat-Mosaic	581731	6935499	32	-59	421	264	Assays results in table above
22MORC261	RC	White Heat-Mosaic	581795	6935597	32	-59	420	74	Assays results in table above
22MORC262	RC	White Heat-Mosaic	581784	6935563	32	-59	421	124	Assays results in table above
22MORC263	RC	White Heat-Mosaic	581759	6935466	32	-59	422	289	Assays results in table above
22MORC264	RC	White Heat-Mosaic	581743	6935480	32	-59	422	289	Assays results in table above

**Table 2a: Summary of new MGV diamond drill hole assays at White Heat-Mosaic**

Drill Hole ID	Drill Type	Deposit	Sample Type	EOH	From (m)	Interval (m)	Au (g/t)	Comment
22MODD030	Diam	White Heat-Mosaic	Geological	180.5	141.5	2.0	2.0	Weak gold mineralisation in Mosaic Lode in interpreted low-grade zone

**Table 2b: Summary of new MGV drill collars from diamond drilling at White Heat-Mosaic**

Drill Hole ID	Drill Type	Deposit	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
22MODD030	Diam	White Heat-Mosaic	581804	6935477	330	-60	422	180.5	Assays results in table above

*Notes to Tables 1a, 1b, 2a and 2b*

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 although all drill holes are planned to intersect lodes perpendicular to interpreted targets.
2. In RC drilling one metre individual samples are collected and analysed for gold.
3. 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 or Bureau Veritas in Canning Vale (0.01ppm detection limit), WA, Western Australia or a 500g sample by Photon Assay at Genalysis-Intertek in Maddington.
4. g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept)
5. Higher grade intersections reported here are generally calculated over intervals >0.5g/t gram metres where zones of internal dilution are not weaker than 6m < 0.5g/t Au.
6. All drill holes referenced in this announcement are reported in Tables 1a and 1b and Tables 2a and 2b.
7. Drill type; AC = Aircore, RC = Reverse Circulation, Diam = Diamond.
8. Coordinates are in GDA94, MGA Z50.

---ENDS---

## JORC TABLE 1

### Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<i>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.</i>	<p>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 on site to aid geological interpretation. No XRF results are reported.</p> <p>Historical sampling criteria are unclear for pre 2009 drilling.</p> <p><u>Current RC and aircore drill programs</u></p> <p>RC and 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 using a cyclone splitter. Individual 1m samples are submitted for initial gold assay where significant obvious mineralisation is intersected (e.g. quartz vein lode within altered and sheared host) and are split with a cyclone splitter.</p> <p><u>Diamond drilling</u></p> <p>Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program Samples are cut using an automated diamond saw and half core is submitted for analysis.</p> <p>Individual samples weigh less than 5kg to ensure total preparation at the laboratory pulverization stage. The sample size is deemed appropriate for the grain size of the material being sampled.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>All co-ordinates are in UTM grid (GDA94 Z50) and drill hole collars have been surveyed by handheld GPS to an accuracy of ~1.0m. The accuracy of historical drill collars pre-2009 is unknown.</p>
	<i>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.</i>	<p><u>Current drill programs</u></p> <p>Regional RC and aircore drill samples are composited at 6m intervals using a stainless-steel scoop with all composite intervals over 0.1g/t Au resampled at 1m intervals using a cyclone splitter. Individual 1m samples are submitted for initial gold assay where significant obvious mineralisation is intersected and are split with a cyclone splitter (e.g. quartz vein lode within altered and sheared host). The 3kg samples are pulverised to produce a 50g charge for fire assay with ICP-MS finish for gold.</p> <p>All 1m samples are sampled to 1-3kg in weight to ensure total preparation at the laboratory pulverization stage.</p> <p>In this RC drill program 1m samples were immediately submitted for laboratory analysis from the cyclone splitter on the rig. The sample size is deemed appropriate for the grain size of the material being sampled.</p> <p>Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program Samples are cut using an automated diamond saw and half core is submitted for analysis. Samples are sent to either the Genalysis – Intertek laboratory in Maddington or Bureau Veritas Laboratory in Canning Vale, WA, 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 or 0.01ppm detection limit).</p> <p>Some samples are sent to the NATA accredited Genalysis – Intertek laboratory in Maddington or Bureau Veritas Laboratory in Canning Vale, 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).</p> <p>The PhotonAssay technique was developed by CSIRO and Chryso 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).</p> <p>Coarse gold is present in some samples and may affect sample accuracy. Repeat analysis and screen fire assays are regularly undertaken on samples with coarse gold.</p>

<i>Drilling techniques</i>	<i>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).</i>	RC drilling was undertaken by Challenge Drilling Pty Ltd utilising a KWL350 with an 350psi/1100 cfm on board compressor with a 1000cfm auxiliary. RC holes were drilled with a 5.75-inch hammer. 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. The diamond drilling program reported here was undertaken by West Core Drilling Pty Ltd utilising a LF90D drill rig. PQ, HQ and NQ core is obtained.
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	In this RC drill program 1m samples were immediately submitted for laboratory analysis from the cyclone splitter on the rig. In regional RC drilling 6m composite samples are collected and re-assayed at 1m intervals where 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. Diamond core samples are considered dry. The sample recovery and condition is recorded every metre. Generally, recovery is 98-100% but occasionally down to 70% on rare occasions when ground is very broken.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	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.
	<i>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.</i>	No significant sample loss or bias has been noted in current drilling or in the historical reports or from other MGV drill campaigns.
<i>Logging</i>	<i>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.</i>	All geological, structural and alteration related observations are stored in the database. Air core holes would not be used in any resource estimation, mining or metallurgical studies.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	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.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are logged in full on completion.
<i>Sub-sampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	All diamond core samples are routinely kept dry. Pre 2009 drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	RC 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. Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program Samples are cut using an automated diamond saw and half core is submitted for analysis.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Drill sample preparation and precious metal analysis is undertaken by registered laboratories (Genalysis – Intertek, Bureau Veritas and MinAnalytical). Sample preparation by dry pulverisation to 85% passing 75 micron.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	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.
	<i>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.</i>	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.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	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.

<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	On composite sampling and 1m Aircore re-samples, analysis is undertaken by Intertek-Genalysis or Bureau Veritas (registered laboratory's), with 50g fire assay with ICP-MS finish undertaken for gold. Some RC samples are sent to Intertek, Bureau Veritas or the NATA accredited MinAnalytical Laboratory in Canning Vale, 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. Coarse gold is present in some samples and may affect sample accuracy. Repeat analysis and screen fire assay is regularly undertaken on samples with coarse gold.
	<i>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.</i>	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.
	<i>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.</i>	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.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	MGV samples are verified by the geologist before importing into the main MGV database (Datashed).
	<i>The use of twinned holes.</i>	No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	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.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations are made to any assay data reported.
<i>Location of data points</i>	<i>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.</i>	All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of >±2 metres.
	<i>Specification of the grid system used.</i>	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and historical drill holes are converted from local grid references.
	<i>Quality and adequacy of topographic control.</i>	All current aircore drill hole collars are planned and set up using hand-held GPS (accuracy +2m).
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	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.
	<i>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.</i>	No resources have been calculated on regional drilling targets as described in this release due to the early-stage nature of the drilling
	<i>Whether sample compositing has been applied.</i>	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.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	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.
	<i>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.</i>	No orientation-based sampling bias can be confirmed at this time and true widths are not yet known.

<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	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, Bureau Veritas in Canning Vale or MinAnalytical in Canning Vale). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (e.g. Lab-Trak system at Genalysis-Intertek).
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits have been completed on sampling techniques and data due to the early-stage nature of the drilling

## Section 2 Reporting of Exploration Results

<b>Criteria</b>	<b>Explanation</b>	<b>Commentary</b>
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	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"). The Break of Day, Starlight, Lena and White Heat-Mosaic deposits are located on granted mining lease M21/106 and the primary tenement holder is Musgrave Minerals Ltd. Other deposits including Big Sky and Numbers are located on M21/106 and E58/335 in an area held 100% by MGV. 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.
	<i>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.</i>	The tenements are in good standing and no known impediments exist.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	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 from 1991-2007. Musgrave Minerals has undertaken exploration since 2016.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	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.
<i>Drill hole Information</i>	<i>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: eastings 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 and hole length.</i>	All RC drill hole collars with assays received for the current regional drill program at Cue and reported in this announcement are in Tables 1a and 1b of this announcement. All relevant historical drill hole information has previously been reported by Musgrave, Perilya, Silver Lake Resources and various other companies over the years.
<i>Data aggregation methods</i>	<i>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.</i>	Significant assay intervals are recorded above 1g/t Au with a minimum internal interval dilution of 2m @ 0.5g/t Au. No cut-off has been applied to any sampling.

	<p><i>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.</i></p>	<p>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 &lt;0.5g/t Au for any interval. Short high-grade intervals are tabulated in Table 1a.</p>
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>No metal equivalent values have been reported.</p>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<p>True widths are not confirmed at this time although all drilling is planned close to perpendicular to interpreted strike of the target lodes at the time of drilling.</p>
<p><i>Diagrams</i></p>	<p><i>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.</i></p>	<p>Diagrams referencing historical data can be found in the body of this report.</p>
<p><i>Balanced reporting</i></p>	<p><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i></p>	<p>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.</p>
<p><i>Other substantive exploration data</i></p>	<p><i>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.</i></p>	<p>All material results from geochemical and geophysical surveys and drilling, related to these prospects has been reported or disclosed previously.</p>
<p><i>Further work</i></p>	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p>	<p>A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.</p>
	<p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Refer to figures in the body of this announcement.</p>