

ASX RELEASE

25 February 2016

Drilling Discovers Massive Sulphide at Mt Eelya

- 8m of massive to semi-massive sulphide intersected in RC drilling at Mt Eelya on the Cue Project
- Visible chalcopyrite (Copper bearing sulphide) present from 115-123m down hole
- Musgrave's maiden RC drilling program has now been completed with assay results expected within three weeks
- Multiple gold-copper targets have been identified from the recently completed VTEM survey for follow-up
- Significantly, EM conductors Identified at Mt Eelya, Colonel, Hunky Dory and Lady Stardust are proximal to anomalous gold and or base metals identified from surface sampling
- Surface rock chip samples with up to 31g/t gold identified at Hunky Dory



Figure 1: RC drill chips from drill hole 16EHRC001 at the Mt Eelya prospect showing copper sulphide mineralisation from 115m to 123m down hole.

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: MGV) is pleased to advise that eight metres of massive to semi-massive sulphide has been intersected at the Mt Eelya prospect on the Cue Project in the Murchison region of Western Australia. The intersection is from 115m to 123m down hole with visible chalcopyrite (copper sulphide) identified throughout the interval (Figure 1).

Drilling at Mt Eelya was part of an initial reverse circulation ("RC") drill program on the Cue Project, testing six individual targets including gold targets at Moyagee and Vostok (Figure 2). All drill samples are currently

28 Richardson Street, West Perth WA 6005 Telephone: (61 8) 9324 1061 Fax: (61 8) 9324 1014 Web: <u>www.musgraveminerals.com.au</u> Email: <u>info@musgraveminerals.com.au</u> ACN: 143 890 671 being submitted for assay with all results expected within three weeks. Samples from the Mt Eelya intersection will be prioritised for analysis.

The Cue Project ("The Project") is a Farm-In and Joint Venture Agreement with Silver Lake Resources Limited ("Silver Lake") (ASX: SLR) where Musgrave can earn up to an 80% interest. The Project consists of the Moyagee Gold and Hollandaire Copper Resources.

Musgrave completed a Versatile Time-Domain Electromagnetic (VTEM Max) airborne geophysical survey over the broader Hollandaire project area at Cue (Figure 2) to identify bedrock conductors that may be associated with new mineralisation. The program was a success. The survey has identified multiple bedrock conductors that represent high-priority gold–copper targets at the Cue Project (Figure 3). Significantly, the survey has identified electromagnetic conductors at Hunky Dory and Lady Stardust, and extensions to a previously identified, untested conductor at Colonel, where there is an association with anomalous base metals and/or gold identified from surface sampling.

The VTEM data also confirmed a previously identified conductor at Mt Eelya, which has a strong geochemical signature at surface, and which recent modelling showed had not been adequately tested by historical drilling.

Gossan, the weathered product of sulphide mineralisation, was identified proximal to the up dip extensions of the conductors identified at Mt Eelya and Colonel (Figure 2). The gossan at Mt Eelya can be traced over a strike of more than 300m. Reconnaissance surface sampling of the gossans returned elevated copper and gold values including 0.56% Cu, 70ppb Au and 1.6g/t Ag at Mt Eelya and 0.33% Cu, 150ppb Au and 30.2g/t Ag at Colonel (Appendix 2). Neither EM target has been effectively drill tested by historical drilling.

In addition, elevated gold values have been identified in surface rock chip samples proximal to the up dip extensions of the targets identified at Hunky Dory and Lady Stardust. Reconnaissance surface quartz vein sampling proximal to historic artisanal workings returned assays up to 31g/t Au, 0.12% Cu and 3.8g/t Ag at Hunky Dory and 0.45g/t Au in ironstone at Lady Stardust (Appendix 2). Neither EM target has been effectively drill tested by historical drilling.



Figure 2: Cue project location plan comprising Hollandaire and Moyagee projects

There are 14 other conductors defined by the VTEM survey. Field verification of these targets is ongoing.

Musgrave Managing Director Rob Waugh said, "The Mt Eelya sulphide drill result is a fantastic start to our campaign and supports Musgrave's view on the upside potential of the project. We are also eagerly awaiting the assay results from our gold focused drill holes. The VTEM results are extremely encouraging and are supported by historical and recent surface sampling providing additional high priority targets for drill testing."



Figure 3: Cue project late time image of VTEM data overlaying greyscale aeromagnetic image

Enquiries:

Rob Waugh Managing Director Musgrave Minerals Limited +61 8 9324 1061

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's focus is to increase 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 the highly prospective Mamba Ni-Cu sulphide project in the Fraser Range of Western Australia and an active epithermal Ag-Pb-Zn-Cu project in the prospective silver and base metals province of the southern Gawler Craton of South Australia and a large exploration footprint in the Musgrave Province in South Australia. Musgrave has a powerful shareholder base with four mining and exploration companies currently participating as cornerstone investors.

Competent Person's Statement Exploration Results

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.

Appendix 1: Summar	y of Drill	hole	Locations
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Drill Hole ID	Prospect	Sample Type	Easting (m)	Northing (m)	Azimuth (Degrees)	Dip (Degrees)	Total Depth (m)	Sulphide Intersection (down hole interval) (m)
16EHRC001	Mt Eelya	RC	612890	6977410	040	-60	141	115-123

Appendix 2: Summary of Rock Chip Sample Locations and Significant Results

Sample ID	Prospect	Sample Type	Easting (m)	Northing (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
SR00110	Colonel	Gossan Float	612733	6979260	0.04	1.1	0.20	0.09
SR00111	Colonel	Gossan Float	612733	6979260	0.15	30.2	0.33	0.01
SR00112	Colonel	Rock Chip	612562	6979288	0.21	11	0.07	0.02
SR00157	Mt Eelya	Gossan Float	612868	6977456	0.07	0.8	0.15	0.90
SR00158	Mt Eelya	Gossan Float	612869	6977457	0.05	1.6	0.21	0.02
SR00159	Mt Eelya	Gossan Float	612689	6977485	0.01	х	0.56	0.24
SR00131	Lady Stardust	Lag Float Composite	610756	6969638	0.45	х	0.02	0.02
SR00144	Hunky Dory	Gossanous quartz near artisanal workings	610155	6968486	8.45	1.6	0.14	0.05
SR00145	Hunky Dory	Gossanous Quartz	611218	6968457	х	х	х	0.04
SR00146	Hunky Dory	Ironstone Float	610126	6968452	0.12	х	0.06	0.02
SR00148	Hunky Dory	Ironstone Float	610169	6968469	19.11	1.3	0.13	0.01
SR00169	Hunky Dory	Gossanous quartz near artisanal workings	610155	6967955	3.26	х	0.18	0.05
SR00170	Hunky Dory	Gossanous quartz near artisanal workings	610157	6967957	31.08	3.8	0.12	0.01
SR00171	Hunky Dory	Gossanous quartz near artisanal workings	610126	6967953	14.49	1.2	0.23	0.02
SR00172	Hunky Dory	Gossanous quartz near artisanal workings	610169	6967960	4.27	х	0.09	0.01

Notes

1. An accurate dip and strike and the controls on mineralisation are only interpreted and the true width of mineralisation is not yet known.

All rock chip analysis was undertaken by Genalysis-Intertek using aqua regia digest and ICPOES /SAA
g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), X = below detection limit

---ENDS---

JORC TABLE 1 Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling	Nature and quality of sampling (e.g. cut channels, random chips,	Sampling is undertaken using standard industry
techniques	or specific specialised industry standard measurement tools	practices including the use of duplicates and standards
	appropriate to the minerals under investigation, such as down	at regular intervals.
	hole gamma sondes, or handheld XRF instruments, etc). These	Reverse circulation (RC) and aircore samples were
	examples should not be taken as limiting the broad meaning of	collected at 1m intervals with samples riffle split to 3-
	sampling.	5kg in weight. Diamond core sampling was undertaken
		on geological intervals.
	Include reference to measures taken to ensure sample	Soil sample co-ordinates are in UTM grid (GDA94 Z50)
	representivity and the appropriate calibration of any	and have been either surveyed or measured by hand-
	measurement tools or systems used.	held GPS with an accuracy of >±5 metres.
Drilling	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary	A combination of aircore, RC and diamond drilling has
techniques	air blast, auger, Bangka, sonic, etc) and details (e.g. core	been used by multiple companies.
	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).	
Drill sample	Method of recording and assessing core and chip sample	Diamond core recoveries are logged and recorded in
recovery	recoveries and results assessed.	the database. RC bulk sample weights are observed
		and noted.
	Measures taken to maximise sample recovery and ensure	Diamond core is reconstructed into continuous
	representative nature of the samples.	intervals on angle iron racks for orientation and
		reconciliation against core block markers. Rod and
		metre counts are routinely carried out by the driller.
	Whether a relationship exists between sample recovery and grade	No significant sample loss or bias has been noted.
	and whether sample bias may have occurred due to preferential	Some sample loss identified in a few selected drill
	loss/gain of fine/coarse material.	holes. All sample loss is recorded in database.
Logging	Whether core and chip samples have been geologically and	All geological, structural and alteration related
	geotechnically logged to a level of detail to support appropriate	observations are stored in the database.
	Mineral Resource estimation, mining studies and metallurgical	
	studies.	
	Whether logging is qualitative or quantitative in nature. Core (or	Logging of lithology, structure, alteration,
	costean, channel, etc) photography.	mineralisation, colour and other features of core or RC
		chips is undertaken on a routine 1m basis. Photography
		of diamond core is undertaken prior to cutting and
	The total leastly and according of the value of interesting	sampling.
	The total length and percentage of the relevant intersections	All drill holes are logged in full on completion.
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core	Diamond core is cut and sampled on geological
techniques and	token	intervals A diamond core saw is used to cut the core
samnle		and selected half core intervals are submitted for
preparation		analysis
preparation	If non-core, whether riffled, tube sampled, rotary split, etc and	RC and aircore samples are routinely riffle split if dry.
	whether sampled wet or dry.	
	For all sample types, the nature, quality and appropriateness of	Drill sample preparation and base metal and precious
	the sample preparation technique.	metal analysis is undertaken by a registered laboratory.
		Sample preparation by dry pulverisation to 90%
		passing 75 micron.
	Quality control procedures adopted for all sub-sampling stages to	Field QC procedures involve the use of certified
	maximise representivity of samples.	reference standards, duplicates and blanks at
		appropriate intervals.
	Measures taken to ensure that the sampling is representative of	Sampling is carried out using standard protocols and
	the in situ material collected, including for instance results for field	QAQC procedures as per industry best practice.
	duplicate/second-half sampling.	Duplicate samples are inserted and routinely checked
		against originals.
	Whether sample sizes are appropriate to the grain size of the	Sample sizes are considered appropriate for grain size
	material being sampled.	of sample material. Sample collected from full width of
		sample interval to ensure it is representative of
Quality of seas	The nature quality and appropriate and of the new instance	samples ithology.
Quality of assay	The manufa august and appropriatories of the accessing and	
data and	The nature, quality and appropriateness of the assaying and	Drill sample analysis is undertaken by a registered
data and	laboratory procedures used and whether the technique is considered particle external	Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICD OEs and ICD MS to acceptable detection insite
data and laboratory tests	laboratory procedures used and whether the technique is considered partial or total.	Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICP-OES and ICP-MS to acceptable detection limits.
data and laboratory tests	laboratory procedures used and whether the technique is considered partial or total.	Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICP-OES and ICP-MS to acceptable detection limits. Standard 40g Fire Assay analysis is undertaken for gold.
data and laboratory tests	laboratory procedures used and whether the technique is considered partial or total.	Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICP-OES and ICP-MS to acceptable detection limits. Standard 40g Fire Assay analysis is undertaken for gold. Aqua regia digestion was undertaken for gold with surface samples reported here
data and laboratory tests	laboratory procedures used and whether the technique is considered partial or total.	Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICP-OES and ICP-MS to acceptable detection limits. Standard 40g Fire Assay analysis is undertaken for gold. Aqua regia digestion was undertaken for gold with surface samples reported here. Internal certified laboratory OAOC is undertaken

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	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation. etc.	No geophysical tools were used to estimate mineral or element percentages.
	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.	Standards, duplicates, blanks, and repeats are utilised as a standard procedure. Certified reference materials that are relevant to the type and style of mineralisation targeted are inserted at regular intervals.
Verification of sampling and assaving	The verification of significant intersections by either independent or alternative company personnel.	Samples are verified by the geologist before importing into the main database (Datashed).
	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 and geological intervals for diamond 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 at nominal 30m intervals using a digital down hole camera and spear.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and commonly plotted using local grid reference.
	Quality and adequacy of topographic control.	Drill hole collars and RL's are surveyed by qualified surveyors in most instances.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings are used to adequately test targets.
	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.	Existing drill hole spacings are variable and at Lena vary from 20m x 20m to 40m x 40m and to 80m x 80m at depth. The nominal drill hole spacing at Hollandaire is 25m x 25m. These spacings identify sufficient continuity to support the definition of Mineral Resource and Reserves under the classification applied under the 2012 and 2014 JORC Code.
	Whether sample compositing has been applied.	No drill sample compositing has been undertaken within ore zones.
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. Most drill holes are designed at a dip of approximately 60 degrees, however, the Lena mineralisation dips at ~85 degrees and the Hollandaire mineralisation dips at
	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.	~35 degrees. 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 internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth. When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews of modelling techniques and data have been undertaken.

Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure	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,	The primary tenement holder is Silver Lake Resources Ltd and Cue Minerals Pty Ltd (a wholly owned subsidiary of Silver Lake Resources Ltd). Musgrave
status	historical sites, wilderness or national park and environmental settings.	minerals commenced a Farm-In and Joint Venture on the project on 24 November 2015 (see MGV ASX announcement 25 November 2015: "Musgrave Secures Advanced Gold and Copper Project". All drilling and soil sampling is within the Cue project tenements (Lena is M21/106 and Hollandaire E20/699) as outlined in the Farm In and Ioint Venture Agreement
		The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual tenements.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling, soil sampling and geophysical surveys have been undertaken in different areas on the tenements by third parties.
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.
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	All historical drill hole information has previously been reported.
	hole length.	
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.	No new drill hole assay data is reported in this release. No cut-off has been applied to any surface 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.	No new drill hole assay data is reported in this release. No cut-off has been applied to any surface sampling.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	No new drill hole assay data is reported in this release. True widths are not known from surface sampling.
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 data can be found in the body of this release. Some 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.	Representative reporting of significant reconnaissance surface samples is represented.
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 new meaningful data is reported in this release. All material results from geochemical and geophysical surveys and drilling related to these prospects has been reported or disclosed previously. The Geotech VTEM Max helicopter airborne geophysical system was flown. Flight line spacing was 200m with sensor height at approximately 30m.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to figures in the body of this announcement.

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