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ASX: MGV

Musgrave Identifies High Priority Nickel-Copper Targets at Mamba Project

- **12 high priority prospective nickel-copper targets identified**
- **Targets interpreted as intrusive mafic/ultramafic bodies from detailed aeromagnetic data**
- **Follow-up ground EM surveys and aircore drilling planned**

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: MGV) is pleased to announce that it has identified 12 priority targets at its Mamba Project in the Fraser Range region of Western Australia. Musgrave recently completed a detailed aeromagnetic survey over the entire tenement (180km^2) and has identified 12 nickel-copper targets that show magnetic characteristics consistent with mafic-ultramafic intrusive bodies, the prospective host for nickel-copper sulphide mineralisation in the district.

The Mamba nickel-copper project (ELA28/2405) is in the same belt as the world class Nova-Bollinger nickel-copper sulphide discoveries of Sirius Resources NL in south-eastern WA. The tenement is along strike from Sirius' Nova deposit and only 5km from the Trans Australian rail line access corridor (Figure 1).

Musgrave's Managing Director Rob Waugh said: "The newly identified high priority nickel-copper targets provide an immediate focus for our exploration efforts. It's a great result as these techniques have proven successful for identifying mafic-ultramafic intrusives that host nickel-copper sulphides elsewhere in the Fraser Range".

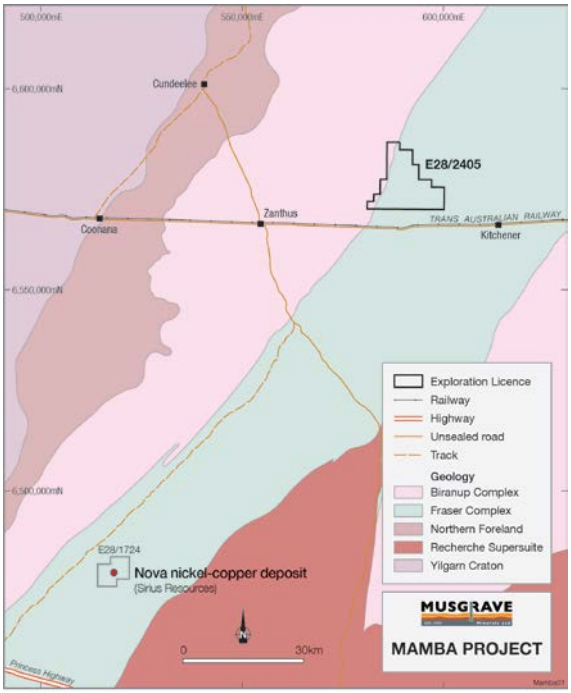

Figure 1: ***Mamba Project Location***

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Musgrave selected targets (Figure 2) based on characteristics such as magnetic intensity, shape, character and relationship to regional structures. Two broad target styles have been interpreted from the aeromagnetic data. The first style includes discrete magnetic highs interpreted to be mafic/ultramafic intrusive bodies prospective for magmatic nickel-copper deposits and the second style includes de-magnetised zones associated with major structural intersections or fold closures that could represent increased areas of fluid flow and potential mineralisation. A summary of the individual targets are provide in Table 1.

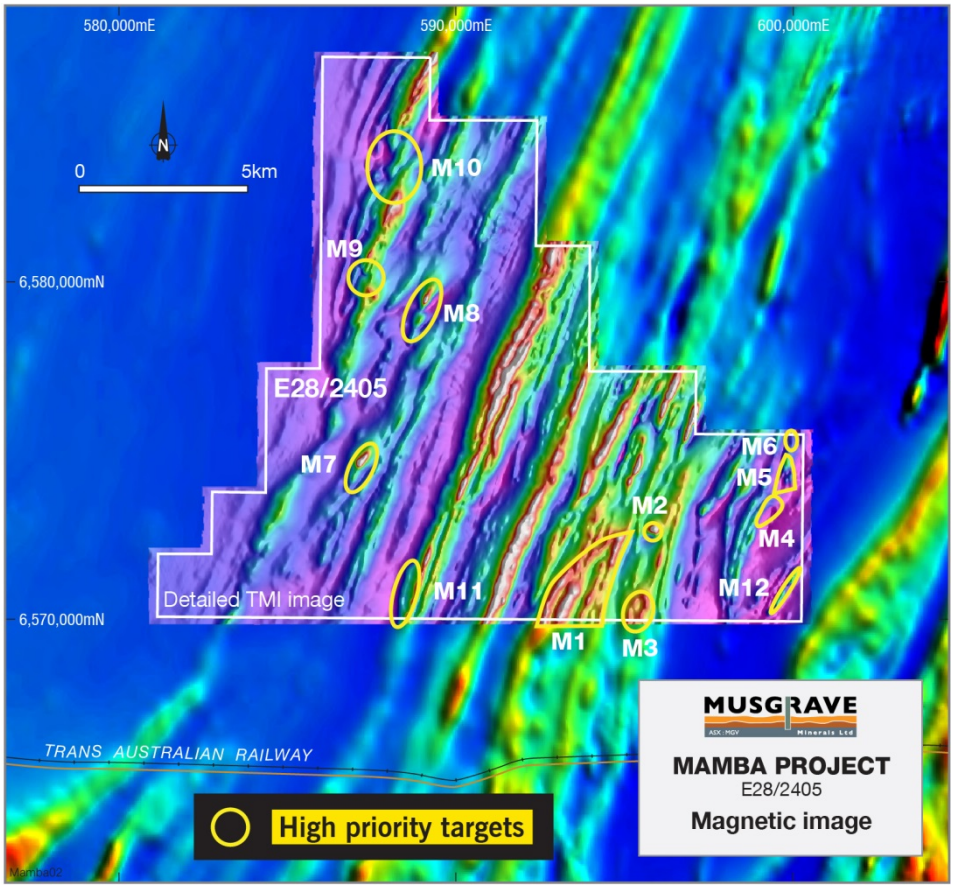

Figure 2: ***Priority targets on detailed aeromagnetic data.***

Follow-up Exploration

Musgrave's technical team is currently designing follow-up exploration on the 12 priority targets. This will involve a combination of ground electromagnetic ("EM") surveys to define specific bedrock conductors and aircore drilling to identify the potential footprint of nickel-copper mineralisation.

The on ground exploration will commence as a matter of priority once the tenement is granted and all statutory approvals have been met.

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Competent Person's Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves 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.

About Musgrave Minerals

Musgrave Minerals Ltd is an active Australian base metals explorer with a large exploration footprint in the Musgrave Province in South Australia, with tenements covering an area of approximately 50,000km^2. The Company also has a new Ni-Cu sulphide project in the highly prospective Fraser Range of Western Australia and an active advanced stage exploration project, Menninnie Dam in the prospective silver and base metals province of the southern Gawler Craton of South Australia. Musgrave has a powerful shareholder base with six mining and exploration companies participating as cornerstone investors.

Table 1: Summary of Interpreted Aeromagnetic Targets

Target	Description
M1	▪ Strongly magnetic elongate body ***interpreted mafic-ultramafic intrusion (potential Ni-Cu host)*** ▪ Interpreted intrusive discordant to main regional trend
M2	▪ Strong discrete magnetic body within magnetically quiet zone — ***interpreted mafic/ultramafic intrusive feature (potential Ni-Cu host)***
M3	▪ Moderate magnetic feature — ***possible mafic-ultramafic intrusion (potential Ni-Cu host)*** ▪ Magnetic destruction along magnetic horizons, related to NW–SE cross-cutting structures
M4	▪ Moderately magnetized fold closures adjacent to major SSW–NNE structure ***(potential Ni-Cu sulphide position)*** ▪ Magnetite destruction related directly to major shear zone associated splay
M5	▪ Fold closure bounded by SSW–NNE shears, and WSW–ENE cross-cutting structure ***(potential Ni-Cu sulphide position)*** ▪ Possible faulted repetition of M4
M6	▪ Weakly magnetized fold closure ***(potential Ni-Cu sulphide position)*** ▪ Truncated by NW–SE cross-cutting structures (transfer faults between shear zones)
M7	▪ Strong SSW–NNE linear magnetic feature ***interpreted as mafic-ultramafic intrusion (potential Ni-Cu host)***, close to major NW–SE transfer fault ▪ Within same structural corridor as M8
M8	▪ Strong SSW–NNE linear magnetic feature interpreted ***as mafic-ultramafic intrusive (potential Ni-Cu host)***, close to major NW–SE crustal transfer fault, and bisected by splay off major SSW–NNE shear ▪ Within same structural corridor as M7
M9	▪ Demagnetized zone at the intersection of the Fraser Fault Zone and a major NW–SE crustal transfer fault ***(potential Ni-Cu sulphide position)***
M10	▪ Large demagnetized zone at the intersection of the Fraser Fault Zone and a major NW–SE crustal transfer fault ▪ Structurally complex area ***(potential Ni-Cu host intrusive)***
M11	▪ Weakly magnetic linear feature ***(potential mafic-ultramafic intrusive, possible Ni-Cu host)*** adjacent to flexure along major SSW–NNE shear ▪ Pressure shadow within dextral shear regime
M12	▪ Weakly magnetic linear feature ***(potential mafic-ultramafic intrusive, possible Ni-Cu host)*** adjacent to flexure along major SSW–NNE shear, with some possible demagnetization along the trend ▪ Pressure shadow within dextral shear regime

Mamba Project
JORC TABLE 1

Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	All data is within Mamba Project tenement E28/2405 in the Fraser Range of Western Australia. E28/2405 is 100% held by Musgrave Minerals Ltd. There is no Native Title claim over the area covered by the tenement.
	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 tenement application is in good standing and no known impediments exist.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Historical drilling on this tenement has been limited to a small number of shallow aircore holes covering a $1km^2$ area in the north-east corner of the tenement completed by a previous explorer.
Geology	*Deposit type, geological setting and style of mineralisation.*	Musgrave is exploring for multi commodity style deposits consistent with low MgO magmatic nickel-copper sulphide systems and Proterozoic 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.*	No drilling has been undertaken by the owner or referred to in this report.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	No drilling has been undertaken by the owner or referred to in this report.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	No significant mineralisation has yet been identified on the tenement
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.*	Refer to figures 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.*	No drilling has been undertaken by the owner or referred to in this report.
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.*	A fixed wing aeromagnetic and radiometric survey was conducted over the entire tenement area of E28/2405 by Thomson Aviation. The survey comprises 2136 line km of data, with an E-W line orientation at 100m line spacing and nominal sensor height of 35-40m. The grid system used is GDA94 Z51
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	A range of exploration techniques are being considered to progress exploration including 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 report.