ASX Announcement
18 June 2021

ASX: **ODM**

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Updated: Outstanding EM Survey Results

- **HeliTEM2 airborne electromagnetic survey ("EM") identifies 58 new targets from preliminary data, including 6 high priority first order EM targets at Odin's flagship Koonenberry Copper Project located in northwest NSW.**
- **Significant targets have been detected in known Volcanic Massive Sulphide (VMS) copper trends including:**
    - **Grasmere: Higher magnitude anomalism identified along strike and in proximity to the Grasmere deposit highlighting potential association with increased sulphide mineralisation. Grasmere contains an Indicated and Inferred Mineral Resource Estimate totalling 5.75 Mt @ 1.03% Cu**
    - **Cymbic Vale: Targets have been identified over >7km of strike and incorporates known copper mineralisation that extends over >1.2km of strike as defined by previous RC drilling that intersected 20m @ 0.73% Cu and 20m @0.33% Cu[1] (from Surface),**
    - **Wertago: Historic mining trend where geology is highly prospective for VMS along strike from the historic Wertago and associated mines, where little or no historic drilling has occurred. A further untested anomalous "Western" trend has been identified that extends for over 10km and includes 2 high priority targets,**
- **Ground reconnaissance is set to commence as soon as possible, starting with high priority targets.**
- **Final data to be received in July.**
- **Drilling planned to commence in August.**

Odin Metals Limited (ASX: ODM) (Odin or the Company) is pleased to provide the following exploration and corporate update:

HeliTEM2 Airborne Electromagnetic Survey

Odin recently completed a detailed modern HeliTEM2 EM covering an area of ~1,150km^2, within its Koonenberry project.

The airborne EM survey is the largest of its kind to be conducted over the highly prospective Koonenberry belt and focused on known mineralised trends, including the recently acquired Grasmere Deposit, plus its 21km of prospective strike. Interpreted VMS trends associated with near surface small scale historical mining, including Cymbric Vale & Wertago were also covered.

ODM has received preliminary data from CGG Aviation (Australia) Pty Ltd the survey contractor, from which 58 targets have been identified, including 6 high priority targets (Figure 1) within known mineralised copper trends.

Ground reconnaissance and field verification is set to commence as soon as possible focused on verifying 6 high priority first order targets followed by checking of numerous second order target located in known significant mineralised trends. On completion of the field reconnaissance and the receipt of finalised data, ODM plans to commence drill testing of priority targets in August.

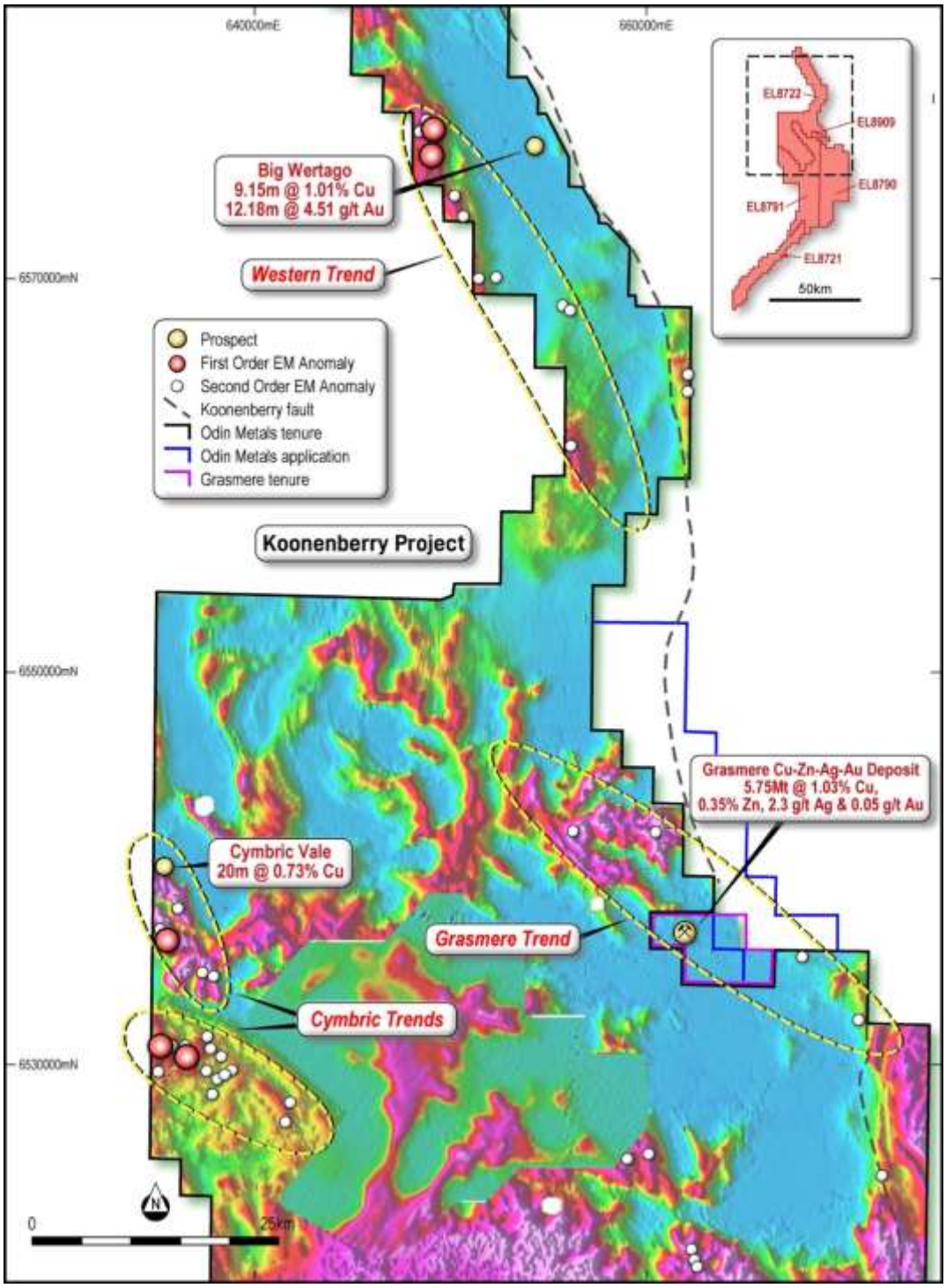


Figure 1: New HeliTEM2 EM targets at the Koonenberry Cu Project with Airborne EM Background, 2021 HTEM CH10 Z Component with stitched insert from 2010 (area east of Cybric Vale) VTEM CH20 Z Component

Authorised for release by: Jason Bontempo – Executive Chairman

For further information on Odin and its projects please visit: www.odinmetals.com.au or contact info@odinmetals.com.au

Notes on Release:

1. Two RC holes (CAVAC12 and CVAC13) were completed by Platsearch NL & Bonding Mining in 2007. The holes were drilled ~620m apart on a significant Cu mineralised trend that extends for at least 1.2km. Details of the drilling was reported by Bondi Mining on the 20/05/2008 ("Annual Report for PE 19 April 2008 over EL 6403 and EL 6834 Cymbric Vale Broken Hill Region – NSW"). The report is located at: https://search.geoscience.nsw.gov.au/report/R00079540

Competent Persons Statement:

The information in this report that relates to Exploration results and Mineral Resources is an accurate representation of the available data and is based on information compiled by Mr Simon Mottram who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Mottram is a Director of Odin Metals Limited. Mr Mottram has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP) as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mottram 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

HeliTEM2 Electromagnetic Survey Details

The **HeliTEM2** (EM) survey was completed by CGG Aviation (Australia) Pty Ltd, May-June 2021.

The electromagnetic (EM) data for the EM fields were acquired with a HeliTEM2 configuration working at a base frequency of 12.5 Hz/6.25 Hz. B-field data was subsequently post processed from the dB/dt data. Magnetic data was collected with a magnetometer also hung below the helicopter, and elevation data from the aircraft differential GPS.

The HeliTEM2 system comprises a large, 35m diameter transmitter loop and a 3-component induction coil sensor, providing a dipole moment of ~560,000 Am^2.

Equipment
Transmitter: HeliTEM2 -with 3-component (X,Y,Z) induction coil sensor
Magnetometer: Scintrex/CS-3 cesium vapor
Magnetometer ambient range: 15,000 – 105,000 nT
GPS Real-time Measurement Precision: 6 cm RMS
GPS Real-time accuracy: 1.8 m (single frequency)
Radar Altimeter Manufacturer/Model: Honeywell/Sperry AA300 series
Radar Altimeter Measurement Precision: 1 ft
Radar Altimeter Accuracy: ±3 ft (0 – 100 ft)
Laser Altimeter Manufacturer/Model: TruSense/S200
Laser Altimeter Accuracy: ±4 cm (short-range mode)

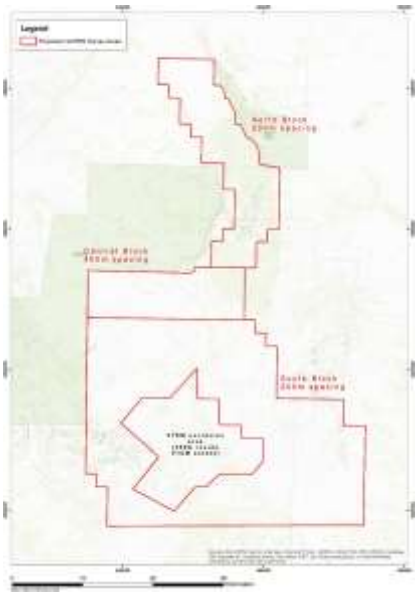
Survey Specifications
Line Spacing: 200m/400m
Transmitter Loop Size: 35m diameter
Coordinate System: WGS84, UTM Zone 54S
Base Frequency: 12.5 Hz/6.25 Hz
EM Loop Clearance: 35m
Transmitter pulse width: 20ms
Peak Dipole Moment: 560,000 Am^2 (@+1°C)

Appendix 2

Koonenberry Project - JORC Code (2012) Edition Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	▪ Nature and quality of sampling (eg 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. ▪ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. ▪ 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	▪ A **HeliTEM2** survey of approximately 1,150km was conducted over the project by CGG Aviation (Australia) Pty Ltd ("CGG"). ▪ The survey was carried out on 200m line spacing in the north block, 400m line spaced central block with minor infill lines at 200m, and 200m spacing for the southern block flight lines, oriented east-west (90-270°), with the follow specifications: ▪ HeliTEM2 Configuration Transmitter loop – 35m Peak dipole moment – 560,000 Am^2 (@+1°C) Transmitter Pulse Width – 20ms Base Frequency: 12.5 Hz/6.25 Hz Receiver –3-component (X,Y,Z) induction coil Magnetic Sensor: Scintrex/CS-3 cesium vapor Helicopter Flying Height - 72 meters EM sensor Height- 35 meters Magnetic sensor Height – 35 meters ▪ Helicopter electromagnetic geophysical surveying is an industry standard practice for exploration for conductors generated by massive sulphide bodies.
Drilling techniques	▪ Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	▪ No drilling is reported.
Drill sample recovery	▪ Method of recording and assessing core and chip sample recoveries and results assessed. ▪ Measures taken to maximise sample recovery and ensure representative nature of the samples. ▪ 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 drilling is reported.
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. ▪ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. ▪ The total length and percentage of the relevant intersections logged.	▪ No drilling is reported.
Sub-sampling techniques and sample preparation	▪ If core, whether cut or sawn and whether quarter, half or all core taken. ▪ If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. ▪ For all sample types, the nature, quality and appropriateness of the sample preparation technique. ▪ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. ▪ 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. ▪ Whether sample sizes are appropriate to the grain size of the material being sampled.	▪ No drilling is reported.
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 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. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (e.g. lack of bias) and precision have been established.	▪ HeliTEM2 system is calibrated prior to commencement of the survey. ▪ All digital data is inspected daily by the CGG site crew, and later by the Company's independent consultant geophysicists. ▪ The Company's independent consultant geophysicists receive daily reports on survey production and of any issues. If there any issues, then lines are re-flown.

Criteria	JORC Code explanation	Commentary
		▪ The current data set is preliminary
Verification of sampling and assaying	▪ The verification of significant intersections by either independent or alternative company personnel. ▪ The use of twinned holes. ▪ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. ▪ Discuss any adjustment to assay data.	▪ Not applicable.
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. ▪ Specification of the grid system used. ▪ Quality and adequacy of topographic control.	▪ A real-time differential GPS navigation system. ▪ The GPS provides in-flight accuracy of 1.8m. ▪ The grid Datum used is WGS84, UTM Zone 54S.
Data spacing and distribution	▪ Data spacing for reporting of Exploration Results. ▪ 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. ▪ Whether sample compositing has been applied.	▪ The survey was carried out on 200m line spacing in the north block, 400m line spaced central block, and 200m spacing for the southern block flight lines.  ▪ A preliminary flight path map is plotted daily and checked against design survey specifications.
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. ▪ 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.	▪ The flight path is perpendicular to the strike of the known main geological trends and is proven to be appropriate by the definition of remnants of previously mined deposits on the trend.
Sample security	▪ The measures taken to ensure sample security.	▪ Data acquired directly by CGG and reported to the Company's independent consultant geophysicists.
Audits or reviews	▪ The results of any audits or reviews of sampling techniques and data.	▪ The data is independently verified by to the Company's independent consultant geophysicists.

Section 2 Reporting of Exploration Results

Criteria	JORC Code 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. ▪ 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 Koonenberry Project comprises 5 Exploration licences covering 2,600km^2 in which Odin has the 100%. Peel Far West Pty Ltd retains a 1% Net Smelter Royalty ("NSR") on any production, in addition 1 exploration 100% owned exploration licence over the Grasmere deposit which has no third-party royalties. Standard Australian Government royalties apply to all. ▪ There are no known impediments that would prevent mining development.
Exploration done by other parties	▪ Acknowledgment and appraisal of exploration by other parties.	▪ The Company's CP recognises that the quality and integrity of historical work is currently unknown, and although not materially relevant in the context of the geophysical survey in this report, acknowledges that it is material to the project and that in the future further work will allow the historic work to be evaluated in more detail.
Geology	▪ Deposit type, geological setting and style of mineralisation.	▪ Copper mineralisation in the Koonenberry belt has been recognised historically as VAMS (volcanic associated massive sulphide) related. The Koonenberry Project also contains the Grasmere Deposit, where two conflicting models have been proposed for the copper mineralisation at Grasmere. Given that mineralisation crosscuts stratigraphy, early work proposed that mineralisation is of the Besshi (pelitic–mafic) volcanic associated massive sulphide (VAMS) model, where mineralisation has subsequently been deformed and remobilised into a fault/shear zone. Alternatively, later work has proposed that mineralisation fits the epigenetic structurally controlled high sulphide model since the massive sulphide zone is hosted by a fault/shear that crosscuts stratigraphy (not stratiform) and mineralised zones at Grasmere postdate the initial deformation event.
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length. ▪ If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	▪ No drilling is reported.
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. ▪ 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 equivalent values should be clearly stated.	▪ No assays are 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 assays are reported.
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	▪ A map of the geophysical results generated from the preliminary data are provided in the report.

Criteria	JORC Code explanation	Commentary
	plan view of drill hole collar locations and appropriate sectional views.	
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 results of significance that are relevant to the geophysical survey discussed in this report have been included.
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.	▪ Previous and historical exploration relevant to the Koonenberry project is detailed in previous ASX announcements, that can be found on the ASX or on the Company's website (www.odinmetals.com.au).
Further work	▪ The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out 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.	▪ The Company is awaiting the delivery of the final data, following which targets will be field check, modelled and subsequently ranked with the aim to drill test priority targets commencing in August 2021.