

ASX Announcement

17 January 2023

ASX: OD6

Drilling Commenced at Grass Patch Critical Rare Earth Minerals Project

OD6 Metals Limited (**OD6** or the **Company**) is pleased to advise that drilling has commenced at its Grass Patch Project, which is considered prospective for clay hosted rare earth element (REE) mineralisation.

Highlights:

- Initial Aircore (AC) drilling program commenced at Grass Patch
- Drill program targets areas optimised by recently completed Airborne Electromagnetic Survey (AEM)
- Planned 95-hole program is designed to test regional anomalies with broad spacing to provide an initial insight of where to focus future drilling programs based on grade, depth and thickness of mineralisation
- Initial drilling program expected to be completed by early February 2023
- Assay results anticipated to be available at the end of Q1 2023
- The final AEM data 3D modelling is anticipated to be available by end of Q1 2023

Brett Hazelden, Managing Director, commented:

"We are pleased to have hit the ground running at the start of 2023 with drilling commencing at our Grass Patch Project north of Esperance. The maiden drill program at Grass Patch has been initially designed utilising regional soil anomalies and water bore analyses in the area that have shown the presence of elevated rare earth elements in the ground water. We have been able to further refine the program based on the recently completed Airborne Electromagnetic Survey (AEM) which has highlighted prospective clay basin areas. We look forward to updating the market on our progress and assay results during this quarter which will provide an initial insight of where to focus future drilling programs based on grade, depth and thickness of mineralised areas.

The Grass Patch Project is a compliment to the Company's flagship Splinter Rock Project, where the Company released outstanding drill results in late 2022. We look forward to further drilling at Splinter Rock following the completion of this initial scout program at Grass Patch"



Historical exploration

The Grass Patch Project is a 2,248km² tenement package located approximately 50 to 100km north of Esperance, Western Australia. The area has historical exploration undertaken focused on gold with no sampling conducted for REE in the saprolite zone (prospective for clay hosted REEs). Accordingly, the Grass Patch Project is considered an early-stage exploration project prospective for REE as defined by soil geochemistry and water bore anomalies as outlined in Figure 1 below.

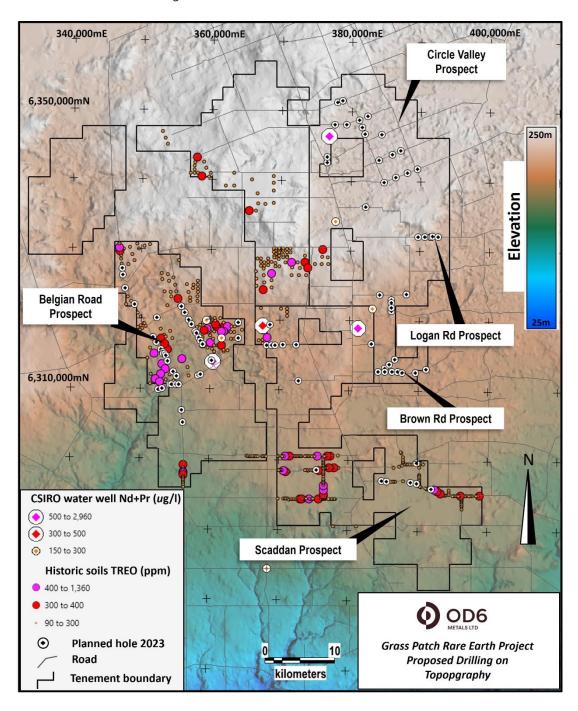


Figure 1: Plan view of topography of the Grass Patch Project, with historic water well and soil sampling rare earth assays, plus planned OD6 drill holes



Planned 95 hole drill program

The initial 95 hole AC drill program has been designed initially based on regional anomalies and water bore assays in the area that have shown the presence of elevated rare earth elements in the ground water. The program has been further refined utilising the recently completed Airborne Electromagnetic Survey (AEM) which has highlighted prospective clay basin areas, shown in yellow, red and pink in Figure 2 below. Results from the program will provide an initial insight of where to focus future drilling programs based on grade, depth and thickness of mineralised areas.

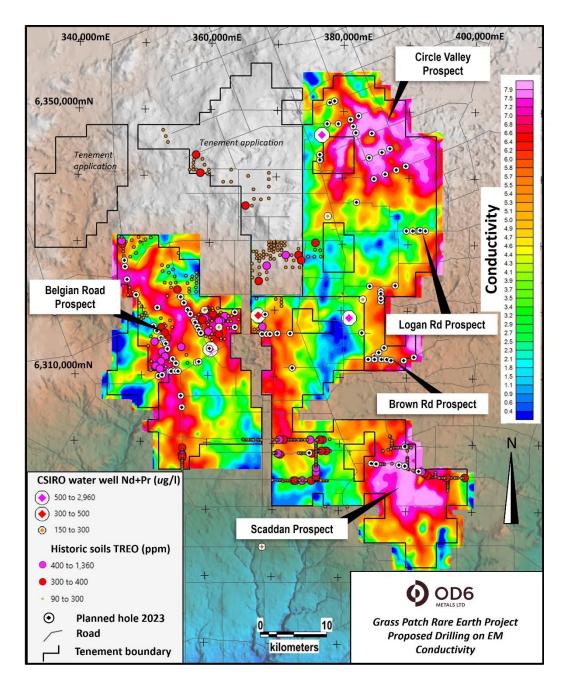


Figure 2: AEM Late time electromagnetic conductivity model of Grass Patch Project. Increased conductivity is interpreted to be zones of thicker conductive clay regolith. Historic water well and soil sampling rare earth assays, plus planned drill holes are also shown.



AEM Background

Survey Area and The Tempest Airborne Electromagnetic Survey was completed over the Grass Patch Projects to the north of Esperance during October and November 2022. The AEM survey aimed to identify and map clay location, expanse, depth and thickness across OD6's tenement areas utilising discovery and processing techniques evaluated in conjunction with the CSIRO (refer ASX Announcement 5 October 2022). The program consisted of 11,500 line km flown between 400m and 800m line-spacing in a west to east direction at Grass Patch.

> Collected data will be analysed and used to map sub-surface electrical conductivity of rocks and soils. Higher electrical conductivity can indicate rock layers that are clay rich, hold salt water or contain sulphide mineralisation. Low electrical conductivity can indicate zones of non-conductive rock (e.g. granite), sand or fresh water. On OD6 tenements, this technique is used to map conductive clay horizons.

To date, the Company has received preliminary conductivity images from the contractor. Preliminary results outlined in this announcement pertain to the Grass Patch Project area with further data processing, analysis and modelling to occur during the first quarter of 2023.

Program timeline

- Completion of the Air Core drilling program is currently scheduled for early February 2023.
- Subject to laboratory processing times, assays are expected to be received in Q1 2023.
- Southern Geoscience Consultants have been contracted to process the final AEM data and conduct 3D modelling to assess for depth from surface to top of clays and clay thickness.
- Full analysis of the AEM data will be completed during Q1 2023.



This announcement has been authorised for release by the Board of OD6 Metals Limited

The information in this announcement that references previously reported exploration results is extracted from the Company's Prospectus dated 10 May 2022 (Prospectus). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus and that all material assumptions and technical parameters contir to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Prospectus.

Competent Persons Statement

Information in this report relating to Exploration Results is based on information reviewed by Jeremy Peters, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist and Mining Engineer of that organisation. Mr Peters is an independent consultant of Burnt Shirt Pty Ltd and 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 as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Peters consents to the inclusion of the data in the form and context in which it appears.

No new information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

Forward Looking Statements

Certain information in this document refers to the intentions of OD6 Metals, however these are not intended to be forecasts, forward looking statements, or statements about the future matters for the purposes of the Corporations Act or any other applicable law. Statements regarding plans with respect to OD6 Metals projects are forward looking statements and can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. There can be no assurance that the OD6 Metals plans for its projects will proceed as expected and there can be no assurance of future events which are subject to risk, uncertainties and other actions that may cause OD6 Metals actual results, performance, or achievements to differ from those referred to in this document. While the information contained in this document has been prepared in good faith, there can be given no assurance or quarantee that the occurrence of these events referred to in the document will occur as contemplated. Accordingly, to the maximum extent permitted by law, OD6 Metals and any of its affiliates and their directors, officers, employees, agents and advisors disclaim any liability whether direct or indirect, express or limited, contractual, tortuous, statutory or otherwise, in respect of, the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence).



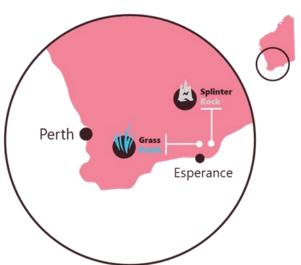
About OD6 Metals

OD6 Metals is an Australian public company with a purpose to pursue exploration and development opportunities within the resources sector. The Company holds a 100% interest in the Splinter Rock Project and Grass Patch Project, which are located in the Goldfields-Esperance region of Western Australia, about 30 to 150km north of the major port and town of Esperance.

Tim Jones

Splinter Rock contains widespread, thick, high-grade clay hosted rare earth element (REE) mineralisation with Grass Patch also considered prospective for clay hosted rare earth elements. The Company's aim is to delineate and define economic resources and reserves to develop into a future revenue generating operational mine. Clay REE deposits are currently economically extracted in China, which is the dominant world producer of REEs.

Rare earth elements (in particular, Nd and Pr), are becoming increasingly important in the global economy, with uses including advanced electronics, permanent magnets in electric motors and electricity generators (such as wind turbines) and battery technologies.



Corporate Directory

Managing Director

Non-Executive Chairman

Non-Executive Director

Non-Executive Director

Non-Executive Director

Dr Mitch Loan

Financial Controller/ Joint Company Secretary

Mr Troy Cavanagh

Joint Company Secretary

Mr Joel Ives

Contact

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Exploration Manager

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JORC 2012 - Table1: Grass Patch

Section 1: Sampling Techniques and Data

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. 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. 	No new sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022
Drilling techniques	Drill type (e.g. core, reverse circulation, openhole 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).	No new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>
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 new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>
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 new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>
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 subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, 	No new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>



Criteria	JORC Code explanation	Commentary
	including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	
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 (i.e. lack of bias) and precision have been established. 	No new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>
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. 	No new sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022 Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors. Element Conversion Oxide ppm Factor Form Ce 1.2284 CeO2 Dy 1.1477 Dy2O3 Er 1.1435 Er2O3 Eu 1.1579 Eu2O3 Gd 1.1526 Gd2O3 Ho 1.1526 Gd2O3 Ho 1.1455 Ho2O3 La 1.1728 La2O3 Lu 1.1372 Lu2O3 Nd 1.1664 Nd2O3 Pr 1.2082 Pr6O11 Sc 1.5338 Sm2O3 Sm 1.1596 Tb4O7 Tb 1.1762 Tm2O3 Tm 1.1421 Y2O3 Tm 1.1421 Y2O3 Tm 1.1421 Y2O3 Y 1.2699 Yb2O3 Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups: TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Tb2O3 + Lu2O3 + Fr2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Yb2O3 + Lu2O3 + Fr2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3.
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. 	 Note that Y₂O₃ is included in the TREO calculation. No new sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022 Grid system was MGA 94 Zone 51
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 	 Tempest Airborne Electromagnetic Survey (AEM), undertaken by Xcalibur Multiphysics Data collected using the TEMPEST EM system (50Hz) using fixed wing aircraft. Nominal flight height of 120 m above ground level. GPS cycle rate of 1 second, accuracy 0.5m Altimeter accuracy of 0.05m Flight line spacing 400 to 800m.



Criteria	JORC Code explanation	Commentary
	applied.	 Conductivity measurements and sampling interval at approximately 11 to 12 metres along line. This data when combined with further drilling will be utilised to guide future mineral resource estimation
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. 	 For AEM data: Flight lines are West- East: drainage and regolith patterns show a regional slope down from North to South. The RJMCMC method uses a comparison method to estimate the conductivity.
Sample security	The measures taken to ensure sample security.	No new sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 The Independent Competent Person has completed a site visit.

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

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 Grass Patch Project is held by Grass Patch Metals Pty Ltd which is a 100% owned subsidiary of OD6 Metals Ltd. Granted exploration Licences include E63/2151, E63/2152, E63/2154, E63/2185. Pending Applications are E63/2153 and E74/693 The ELs predominantly overly freehold agricultural land used for crop and livestock farming to the south. The Company has a Native Title Land Access agreements with Esperance Tjaltjraak Native Title Aboriginal Corporation. The tenements are in good standing with no known impediments outside the usual course of exploration licenses.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 An Independent Geological Report was completed by of Sahara Natural Resources and included in the Company's Prospectus dated 10 May 2022. Historic soil and ground water work is as detailed in independent geologists report in the Prospectus ASX Announcement dated 20 June 2022 The historical data has been assessed and is considered of reasonable quality and useful in exploration targeting.
Geology	Deposit type, geological setting and style of mineralisation.	 The potential rare earth mineralisation at the Grass Patch Project occurs in the weathered profile (insitu regolith clays). The current working hypothesis is that the emplacement of rare earths is through ground water mobilisation and dispersion from an yet unkown source.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth	No new sampling reported in this release. Refer to <u>Prospectus ASX Announcement dated 20 June</u> <u>2022</u>



Criteria	JORC Code explanation	Commentary
	 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. 	
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 new sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022
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 sampling reported in this release. Refer to Prospectus ASX Announcement dated 20 June 2022
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.	Maps in the body of this release.
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.	 Electromagnetic data processing presented in this release is across all tenure at Grass Patch. Further work on the remainder of the project is underway.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All material data available is reported.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further work will include air core drilling, core drilling (e.g. sonic or push-tube drilling), mineralogy, metallurgical test work and study work.