

## State of the Art Modelling Reveals Major Extensions to Rare Earth Element Basins

OD6 Metals Limited (**OD6** or the **Company**) is pleased to provide an update on CSIRO-led research and development outcomes at the Splinter Rock Rare Earth Elements (**REE**) Project.

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### Highlights:

- New Airborne Electromagnetic (**AEM**) modelling expands clay basin areas at Splinter Rock
- Australia's national science agency, CSIRO, applied **machine-learning technology and advanced 3D modelling** to provide an enhanced interpretation of OD6's Tempest AEM data
- The modelling compares well to existing drilling, allowing it to be trained on locally-verified data to produce predictions of:
  - thickness of surface cover, upper clay sediment zone and lower saprolite zone.
  - maps of granite outcrops and depths of clay basin floors
  - targets with the thinnest cover ie low stripping ratio
  - prioritised target areas based on multi-factor inputs for on-going exploration work.
- Newly identified Prospects and expanded basin areas include:
  - **Untested** northeast Splinter Rock basins designated **Tighthead, and Loosehead prospects covering over 135 km<sup>2</sup> at > 40 metres expected clay thickness**
  - **Expanded Centre Prospect** basin area, increasing from 136 km<sup>2</sup> to **154 km<sup>2</sup> at > 40 metres clay thickness** with large zones of **60 to >80 metre thick clays**
- Better modelling of the "Inside Centre" area where the Company recently reported its best intersections to date with a zone >1000 x 2000 m and **>60 m thick and grades 1400 ppm to >2000 ppm TREO** (refer release dated 9 November 2023).

### Brett Hazelden, Managing Director, commented:

*"Our on-going research relationship with CSIRO continues to provide deep insights into our extremely large clay REE basins and channels. Using state-of-the art techniques and technology, the CSIRO research scientists have built a highly accurate model of clay thickness and depth of surface cover. This work is invaluable and allows us to prioritise exploration targets with a high degree of confidence. With new clay-basins identified and more accurate estimates of our defined basin areas, the Splinter Rock clay REE is emergent as the pre-eminent clay REE project in Australia. We are particularly excited about the extensions to our existing Prospects, but also the newly identified basins which significantly add to our already impressive scale."*

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## CSIRO Modelling and Research

In late 2022 OD6 completed a 11,500 line kms, at 400 m to 800 m line spacing, Airborne Electromagnetic (AEM) survey across its REE projects located near Esperance (refer ASX release, [15 December 2022](#)).

REE- bearing saprolite and clay sediment basins are highly conductive so **can be easily mapped and differentiated from the granites**. The Company consulted with researchers at CSIRO to apply new techniques to model basins to predict clay thicknesses and depth of surface cover plus identify high-priority target areas for on-going work. CSIRO used complex algorithms and machine learning technology to develop a model of the surface sand, clay sediment basins, clay saprolite and basement granite. Where verified, both the clay sediment basins and clay saprolite contain significant accumulation of REE bearing clay-basins and their combined thickness form a proxy for target areas.

Models were trained and calibrated against existing drill lines, allowing for predictions of:

- thickness of surface cover, upper clay sediment zone and lower saprolite zone.
- 3D rendering of granite outcrops and clay basin floors.
- targets with the thinnest cover (for low stripping ratio).

These outcomes enable prioritisation of target areas based on multi-factor inputs for on-going exploration work.

In addition, with its on-going commitment to research and development, OD6 is working with CSIRO on mineralogical/clay-species studies; with Murdoch University on mineralogy and metallogeny and with ANSTO on metallurgical recovery models. This research, combined with the expertise of our personnel and consultants, enables accurate geometallurgical modelling. OD6 is targeting the “best of the best” of the very large clay basins to optimise recovery and metallurgical reagent parameters, tonnes and grade and economic parameters. This integrated technique is known commonly as “geometallurgical exploration”.

## Expanded Target Clay Basins

Figure 1 details the updated clay basin prospect areas, inclusive of modelled depth and granite locations, with Figure 2 identifying depth of cover above the clay horizons inclusive of outcropping granites.

Newly identified Prospects and expanded basin areas include:

- Undrilled northeast Splinter Rock tenements designated **Tighthead and Loosehead Prospects covering over 135 km<sup>2</sup> at > 40 metres clay thickness**.
- **Expanded Centre Prospect** basin area, increasing from 136 km<sup>2</sup> to **154 km<sup>2</sup> at > 40 metres clay thickness** with large zones of **60 to 80 metre thick clays**.

An example highlighting the significance of the clay basin areas is the Centre Prospect, hosting a high grade inferred mineral resource estimate of 149Mt @ 1,423 ppm TREO (refer ASX release, [18 July 2023](#)). **This resource model is based on <5% of the clay basin extents.** The Company recently completed an extensional drill program, which encountered high grade rare earths and expanded the known rare earth bearing clays to an area to 14 km x 5km; with the high-grade “Inside Centre” area covering 1000 x 2000 m area with clays >60 m thick and grades of 1400 to >2000 ppm TREO (refer ASX release, [9 November 2023](#)).

The new CSIRO modelling shows that the Centre Prospect area, using a >40 m thick clay basin contour, covers an expanded 154 km<sup>2</sup> target area. Modelling indicates that some zones (including areas already drilled by the Company) are up to 100 m thick. The Prop area, whilst *prima facie* indicates large clay basins, the geophysical conductivity is also influenced by saline groundwater, and as such the geophysical modelling is less reliable.

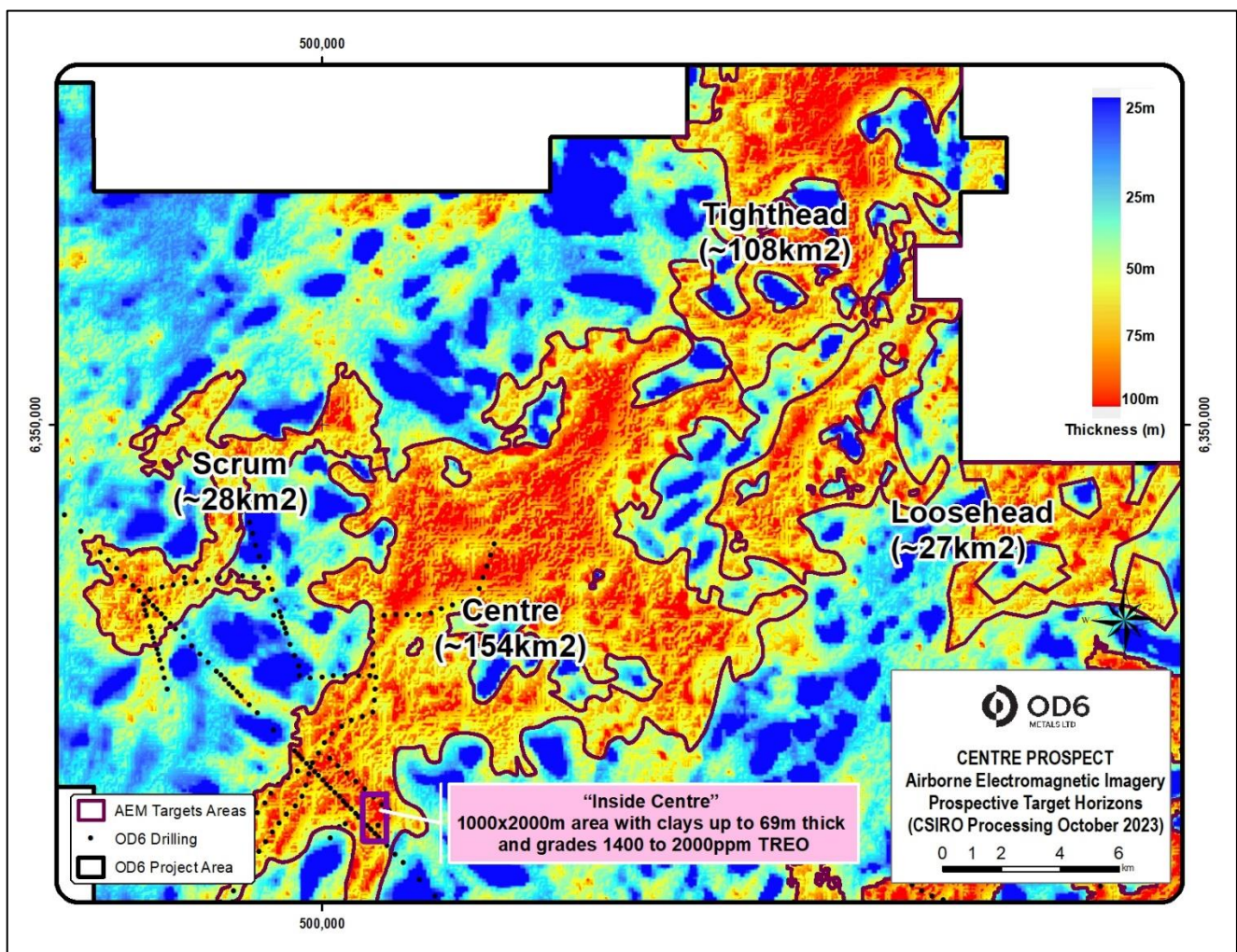


Figure 1: CSIRO modelled depth of surface cover. Orange and red areas are interpreted to indicate thicker clay zones, with blue and green areas the granites.



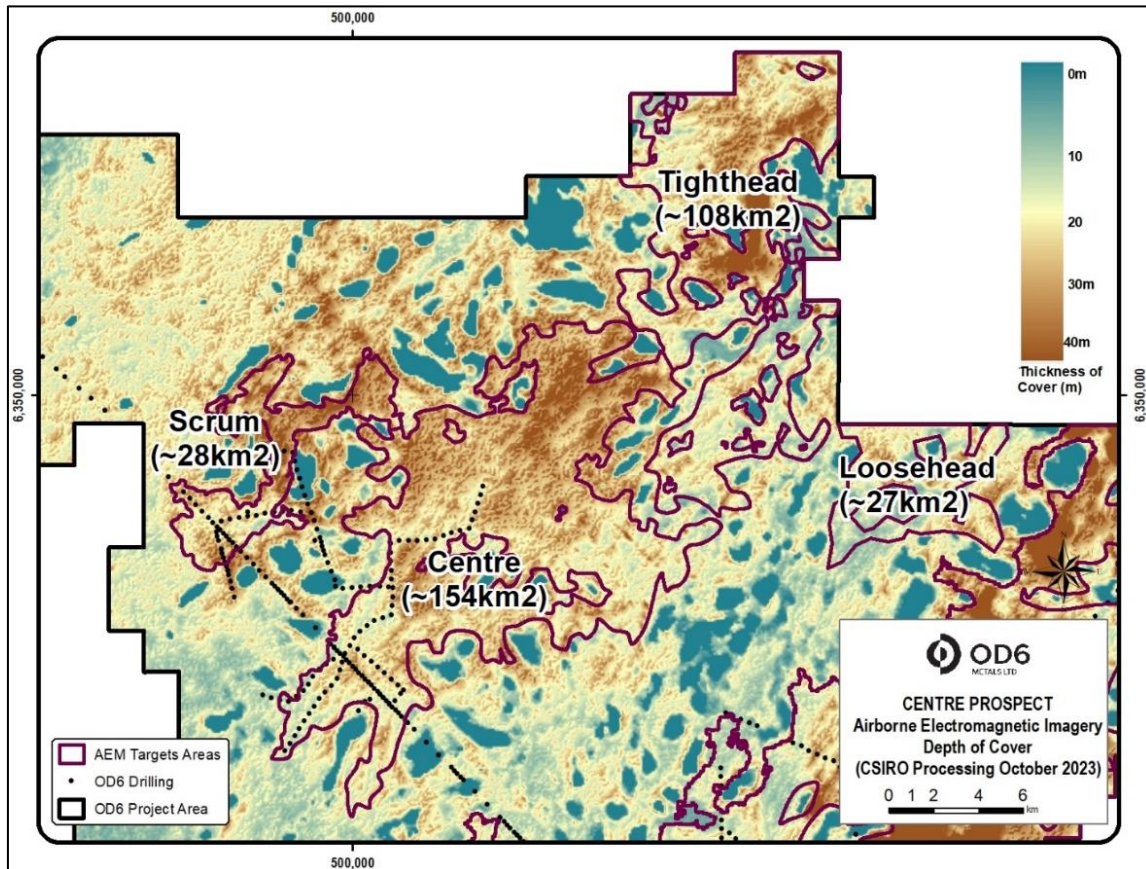


Figure 2: CSIRO modelled depth of surface cover. Brown areas are interpreted thicker sand dune, with yellow areas sands/silts/clays and green areas outcropping granites.

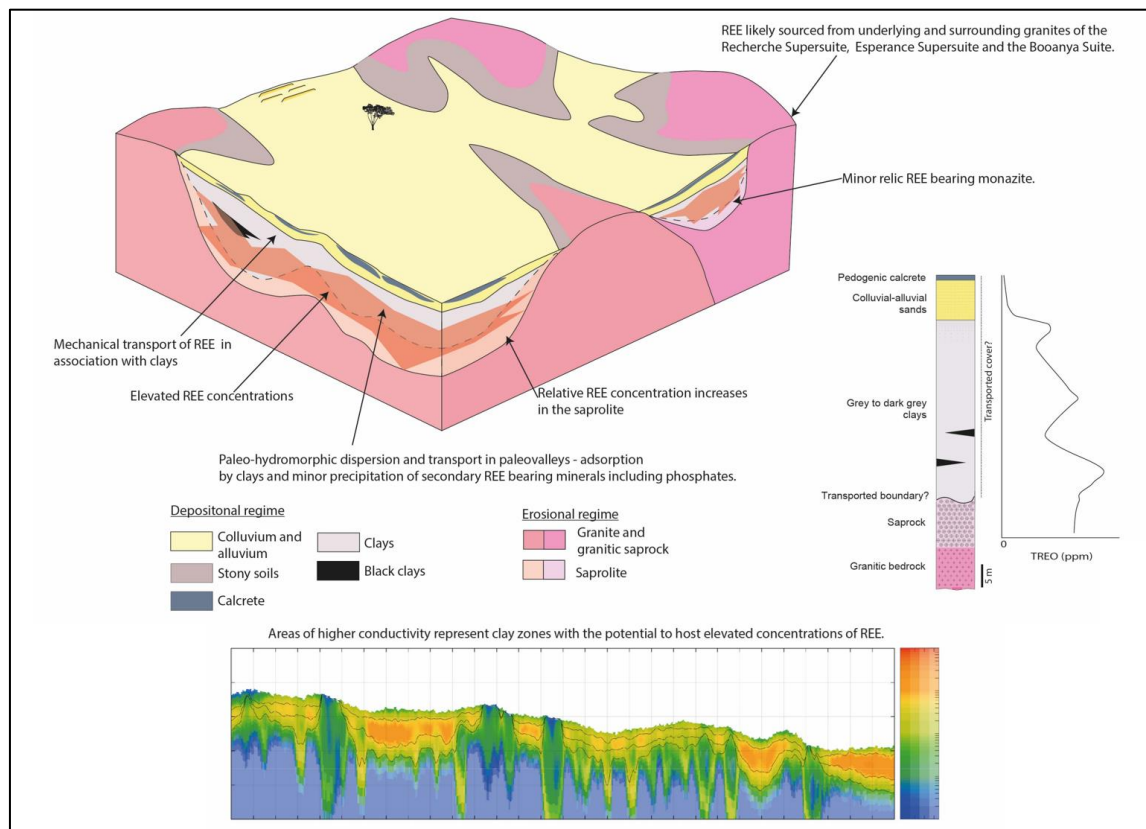


Figure 3: CSIRO produced schematic of Splinter Rock Clay Basins.

### CSIRO modelling process

Tempest AEM data was analysed for noise statistics using a reversible-jump Markov Chain Monte-Carlo (**RJMCMC**) algorithm that analysed 250 randomly selected locations in the survey area. At each location, several hundred thousand electrical conductivity and noise models produced an average noise model to apply to the data for the entire survey.

Having selected noise parameters for the survey, the CSIRO researchers chose further analysis from a representative line from the survey along which has reasonable drill hole control on lithology and geological interpretation. The AEM data along the control line was inverted for a model of electrical conductivity using a spatially constrained inversion algorithm. The inversion algorithm seeks out models of electrical conductivity that produce the best fits to the data measured throughout the survey area.

The models were interpolated to a regularly spaced grid of 100 x 100 m cell size using ordinary kriging. Variogram models were chosen for each model depth but were applied to the entire survey. The resulting 3D inversion model was inspected at 500 m intervals along E-W transects. On each transect section, three boundary layers were manually selected on the basis of results from the RJMCMC parameter estimation and inspection of geochemical data that indicated that at least four different lithological layers were present. The initial interpretations of the geoelectrical layers are transported modern cover (sand), transported ancient cover (clay basins), in-situ weathered granites and clay mixtures (saprolite and saprock), and fresh granite. Both the clay basins and the in-situ weathered granites are target horizons for clay bearing REE. The locations of each of the interfaces were interpolated using machine learning technology to estimate the interface depths throughout the survey area. The results are a series of interface elevation and thickness grids for the entire survey and the prospective regions.

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### Future work

- Regional targets within the identified clay basin prospects will be determined for wide space initial reconnaissance drilling to confirm, rare earth grades, clays thickness, cover thickness and other geometallurgical parameters.
- Heritage surveys and environmental surveys will be conducted to enable Phase 4 drilling works to commence (Figure 4)
- DMIRS permit of work (**PoW**) will be obtained to provide approval for drilling
- Metallurgical samples will be selected from favourable holes
- Infill drilling will occur based on a "best of the best" approach

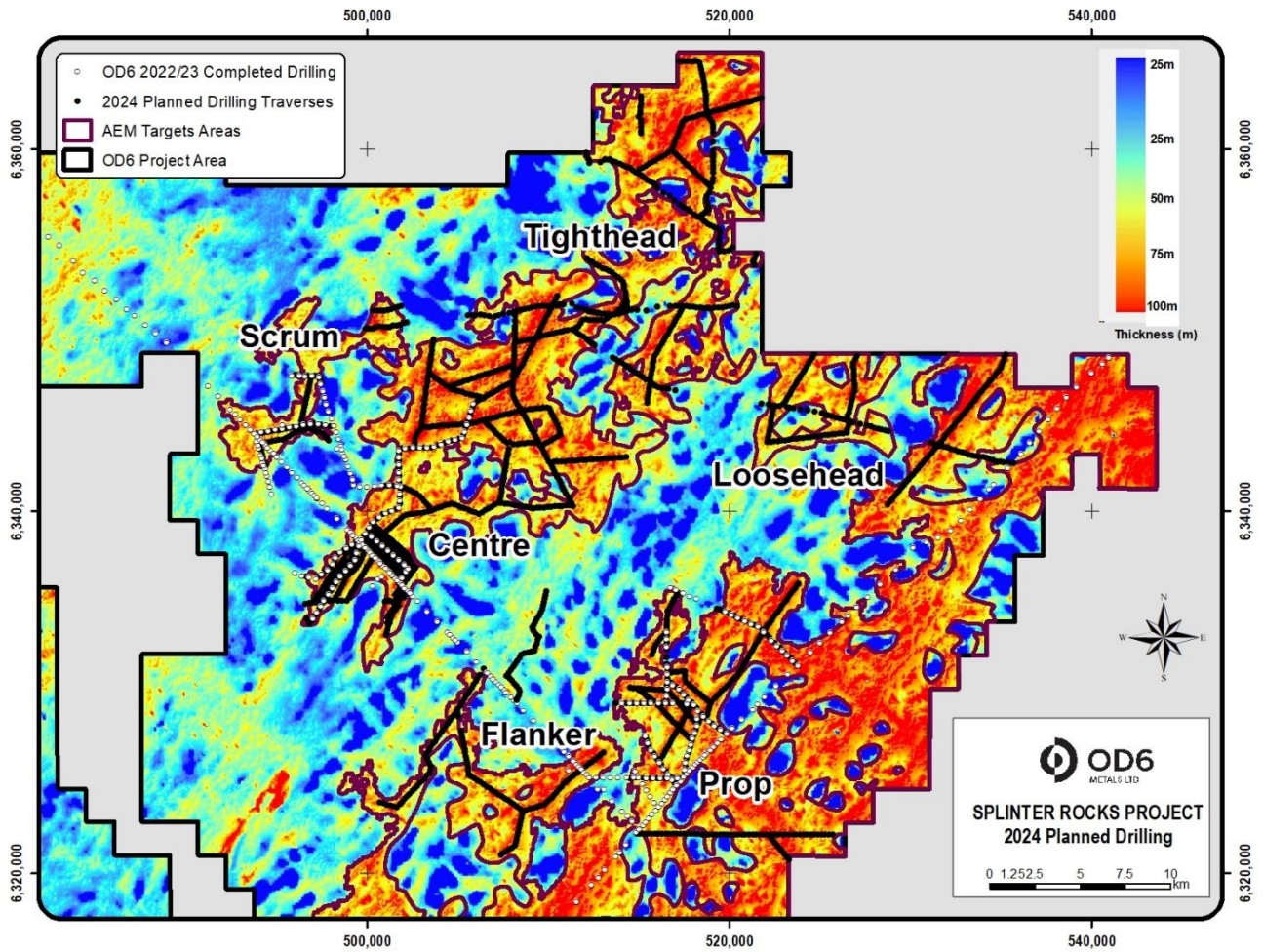


Figure 4: Planned drilling overlaid on the clay thickness model



### 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 guarantee 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).

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

## About OD6 Metals

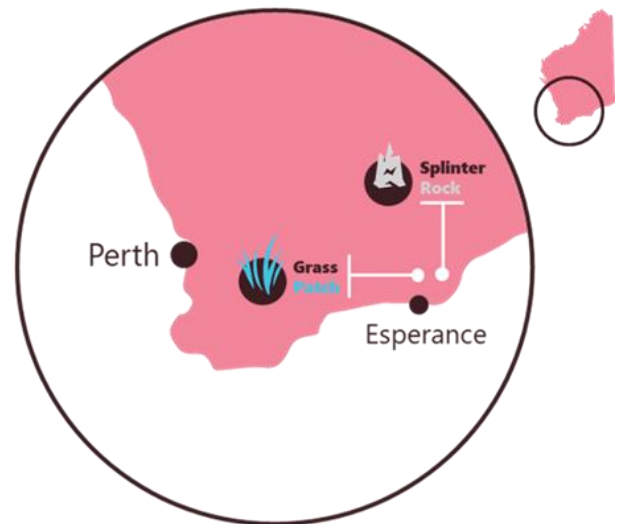
OD6 Metals is an Australian public company pursuing exploration and development opportunities within the critical mineral sector. The Company has successfully identified clay hosted rare earths at its 100% owned Splinter Rock and Grass Patch Projects, which are located in the Esperance-Goldfields region of Western Australia - about 30 to 150km northeast of the major port and town of Esperance.

Drilling and geological analysis at its flagship Splinter Rock has shown widespread, thick, high-grade clay hosted REE deposits that extend over hundreds of square kilometres. Metallurgical testing using hydrochloric acid to leach the rare earths have resulted in positive REE recoveries with optimisation ongoing.

The Company aims to delineate and define economic resources and reserves of Rare Earth Elements (REE), in particular Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy) and Terbium (Tb), which can be developed into a future revenue generating mine. Clay REE deposits are currently economically extracted in China, which is the dominant world producer of REEs.

REE are becoming increasingly important in the global economy, with uses including advanced electronics and permanent magnets in electric motors. As an example, a neodymium magnet used in a wind turbine or electric vehicle motor is 18 times stronger than a standard ferrite magnet significantly increasing energy use efficiency.

As part of the exploration process the Company has entered into heritage agreements with Esperance Tjaltrjaak Native Title Aboriginal Corporation and the Ngadju Native Title Aboriginal Corporation that serves to both enable exploration ; protect important cultural sites on Country.



## Corporate Directory

|   |                   |
|---|-------------------|
| Managing Director                             | Mr Brett Hazelden |
| Non-Executive Chairman                        | Dr Darren Holden  |
| Non-Executive Director                        | Mr Piers Lewis    |
| Non-Executive Director                        | Dr Mitch Loan     |
| Financial Controller/ Joint Company Secretary | Mr Troy Cavanagh  |
| Joint Company Secretary                       | Mr Joel Ives      |
| Exploration Manager                           | Tim Jones         |

## Contact

OD6 Metals Ltd  
ACN 654 839 602  
[www.od6metals.com.au](http://www.od6metals.com.au)  
Mail to: [info@od6metals.com.au](mailto:info@od6metals.com.au)  
Phone: +61 8 6189 8515  
Level 1, 50 Kings Park Road, West Perth, WA 6005  
PO Box 277, North Beach, WA 6920  
PO Box 2009, Esperance, WA 6450



## JORC 2012 – Table1: Splinter Rock

### Section 1 Sampling Techniques and Data

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

| Criteria                                       | JORC Code explanation   | Commentary   |
|--|---|--|
| Sampling techniques                            | <ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> <li>Refer to OD6 website for full list of ASX Announcements<br/><a href="https://www.od6metals.com.au/investors/asx-announcements/">https://www.od6metals.com.au/investors/asx-announcements/</a></li> </ul> |
| Drilling techniques                            | <ul style="list-style-type: none"> <li>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).</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |
| Drill sample recovery                          | <ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |
| Logging  | <ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |
| Sub-sampling techniques and sample preparation | <ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |

| Criteria                                   | JORC Code explanation  | Commentary   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
|--|--|--|-------------|-------------------|------------|----|--------|------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|---------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|--------------------------------|----|--------|-------------------------------|---|--------|--------------------------------|
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Verification of sampling and assaying      | <ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> <li>Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors.</li> </ul> <table border="1"> <thead> <tr> <th>Element ppm</th><th>Conversion Factor</th><th>Oxide Form</th></tr> </thead> <tbody> <tr><td>Ce</td><td>1.2284</td><td>CeO<sub>2</sub></td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Er</td><td>1.1435</td><td>Er<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>La</td><td>1.1728</td><td>La<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Lu</td><td>1.1372</td><td>Lu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr<sub>6</sub>O<sub>11</sub></td></tr> <tr><td>Sc</td><td>1.5338</td><td>Sm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Sm</td><td>1.1596</td><td>Tb<sub>4</sub>O<sub>7</sub></td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Tm</td><td>1.1421</td><td>Y<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Y</td><td>1.2699</td><td>Yb<sub>2</sub>O<sub>3</sub></td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>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:</li> <li>TREO (Total Rare Earth Oxide)<br/> <math display="block">= \text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Tm}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3</math>           Note that Y<sub>2</sub>O<sub>3</sub> is included in the TREO calculation.</li> </ul> | Element ppm | Conversion Factor | Oxide Form | Ce | 1.2284 | CeO <sub>2</sub> | Dy | 1.1477 | Dy <sub>2</sub> O <sub>3</sub> | Er | 1.1435 | Er <sub>2</sub> O <sub>3</sub> | Eu | 1.1579 | Eu <sub>2</sub> O <sub>3</sub> | Gd | 1.1526 | Gd <sub>2</sub> O <sub>3</sub> | Ho | 1.1455 | Ho <sub>2</sub> O <sub>3</sub> | La | 1.1728 | La <sub>2</sub> O <sub>3</sub> | Lu | 1.1372 | Lu <sub>2</sub> O <sub>3</sub> | Nd | 1.1664 | Nd <sub>2</sub> O <sub>3</sub> | Pr | 1.2082 | Pr <sub>6</sub> O <sub>11</sub> | Sc | 1.5338 | Sm <sub>2</sub> O <sub>3</sub> | Sm | 1.1596 | Tb <sub>4</sub> O <sub>7</sub> | Tb | 1.1762 | Tm <sub>2</sub> O <sub>3</sub> | Tm | 1.1421 | Y <sub>2</sub> O <sub>3</sub> | Y | 1.2699 | Yb <sub>2</sub> O <sub>3</sub> |
| Element ppm                                | Conversion Factor  | Oxide Form   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Ce   | 1.2284   | CeO <sub>2</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Dy   | 1.1477   | Dy <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Er   | 1.1435   | Er <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Eu   | 1.1579   | Eu <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Gd   | 1.1526   | Gd <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Ho   | 1.1455   | Ho <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| La   | 1.1728   | La <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Lu   | 1.1372   | Lu <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Nd   | 1.1664   | Nd <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Pr   | 1.2082   | Pr <sub>6</sub> O <sub>11</sub>  |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Sc   | 1.5338   | Sm <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Sm   | 1.1596   | Tb <sub>4</sub> O <sub>7</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Tb   | 1.1762   | Tm <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Tm   | 1.1421   | Y <sub>2</sub> O <sub>3</sub>  |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Y  | 1.2699   | Yb <sub>2</sub> O <sub>3</sub>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Location of data points                    | <ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> <li>Grid system was MGA 94 Zone 51</li> <li>Drill hole collars were located using a handheld GPS to +/-5m accuracy</li> </ul>  |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |
| Data spacing and distribution              | <ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>   | <ul style="list-style-type: none"> <li>Tempest Airborne Electromagnetic Survey (AEM), undertaken by Xcalibur Multiphysics</li> <li>Data collected using the TEMPEST EM system (50Hz) using fixed wing aircraft.</li> <li>Nominal flight height of 120 m above ground level.</li> <li>GPS cycle rate of 1 second, accuracy 0.5m</li> <li>Altimeter accuracy of 0.05m</li> <li>Flight line spacing 400 to 800m.</li> <li>Conductivity measurements and sampling interval at approximately 11 to 12 metres along line.</li> <li>This data when combined with further drilling will be utilised to guide future mineral resource estimation</li> </ul>   |             |                   |            |    |        |                  |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                |    |        |                                 |    |        |                                |    |        |                                |    |        |                                |    |        |                               |   |        |                                |

| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
| <i>Orientation of data in relation to geological structure</i> | <ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>For AEM data: Flight lines are North West- South East: drainage and regolith patterns show a regional slope down from NW to SE, whereas geological structure is dominantly NE-SW.</li> <li>The thickness of clay presented is based on geophysical inversion modelling conducted by the CSIRO. This inversion modelling used Monte Carlo simulation known as RJMCMC regression based on Bodin and Sambridge (2009) <a href="https://doi.org/10.1111/j.1365-246X.2009.04226.x">https://doi.org/10.1111/j.1365-246X.2009.04226.x</a> &amp; Minsley (2011) <a href="https://doi.org/10.1111/j.1365-246X.2011.05165.x">https://doi.org/10.1111/j.1365-246X.2011.05165.x</a> with modifying parameters by CSIRO. refer <a href="#">ASX Announcement 5 October 2022</a></li> </ul> |
| <i>Sample security</i>   | <ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>  | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>   |
| <i>Audits or reviews</i>                                       | <ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>  | <ul style="list-style-type: none"> <li>The Independent Competent Person reviewed the sampling techniques and data collection. The Independent Competent Person completed a site visit during drilling to verify sampling techniques and data collection.</li> </ul>   |

## Section 2 Reporting of Exploration Results

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

| Criteria                                       | JORC Code explanation   | Commentary   |
|--|---|--|
| <i>Mineral tenement and land tenure status</i> | <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>  | <ul style="list-style-type: none"> <li>The Splinter Rock Project is held by Odette Six Pty Ltd which is a 100% owned subsidiary of OD6 Metals Ltd.</li> <li>Granted exploration Licences include E63/2115, E69/3904, E69/3905, E69/3907, E69/3893, E69/3894.</li> <li>The ELs predominantly overly vacant crown land with a small portion of freehold agricultural land used for crop and livestock farming to the south.</li> <li>The Company has Native Title Land Access agreements with Ngadju Native Title Aboriginal Corporate and Esperance Tjaltjraak Native Title Aboriginal Corporation. The tenements are in good standing with no known impediments outside the usual course of exploration licenses.</li> </ul> |
| <i>Exploration done by other parties</i>       | <ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>   | <ul style="list-style-type: none"> <li>An Independent Geological Report was completed by of Sahara Natural Resources and included in the Company's Prospectus dated 10 May 2022.</li> <li>Historic exploration for REE's was conducted by Salazar Gold Pty Ltd</li> <li>The historical data has been assessed and is considered of good quality.</li> </ul>  |
| <i>Geology</i>                                 | <ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>   | <ul style="list-style-type: none"> <li>The rare earth mineralisation at the Splinter Rock Project occurs in the weathered profile (in-situ regolith clays) adjacent to and above Booanya Granite of the East Nornalup Zone of the Albany-Fraser Orogen.</li> <li>The Booanya granites are enriched in REEs. Factors such as groundwater dispersion and paleo-weathering environments may mobilise REEs away from the granite sources.</li> </ul>   |
| <i>Drill hole Information</i>                  | <ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material</li> </ul> | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |

| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
|  | <p>and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>  |  |
| Data aggregation methods   | <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | <ul style="list-style-type: none"> <li>No new sampling reported in this release</li> <li>Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors.</li> <li>These stoichiometric conversion factors are stated in the 'verification of sampling and assaying' table above and can be referenced in appropriate publicly available technical data.</li> </ul>  |
| Relationship between mineralisation widths and intercept lengths | <ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>   | <ul style="list-style-type: none"> <li>No new sampling reported in this release.</li> </ul>  |
| Diagrams   | <ul style="list-style-type: none"> <li>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.</li> </ul>  | <ul style="list-style-type: none"> <li>Maps are included in the body of this release</li> </ul>  |
| Balanced reporting   | <ul style="list-style-type: none"> <li>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.</li> </ul>   | <ul style="list-style-type: none"> <li>As noted in the body of the release.</li> </ul>   |
| Other substantive exploration data                               | <ul style="list-style-type: none"> <li>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.</li> </ul>   | <ul style="list-style-type: none"> <li>All material data available is reported.</li> </ul>   |
| Further work   | <ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>   | <ul style="list-style-type: none"> <li>Mineralisation is open perpendicular to the drill traverses. The Competent Person recommends that OD6 drill traverses in this direction.</li> <li>Further work will include additional air core drilling, core drilling (e.g sonic or push-tube drilling, mineralogy, metallurgical test work and study work. Further work will include additional air core drilling, core drilling (e.g sonic or push-tube drilling, mineralogy, metallurgical testwork and study work.</li> </ul> |