

## **Geophysical and Geochemical Surveys Commenced at Gulf Creek Copper**

OD6 Metals Limited (**OD6** or the **Company**) is pleased to advise that a ground-based electromagnetic geophysics and a surface geochemistry survey has commenced at the Gulf Creek Copper VMS Project in New South Wales.

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### **Highlights:**

- **Gulf Creek geophysical survey commenced to identify accumulations of conductive massive sulphide material**
  - The electromagnetic (conductivity) survey is designed to complement and expand on existing magnetic geophysical modelling that has **identified multiple, high priority extensional and repeat targets across the tenure.**
  - **Geochemical Soil sampling has also commenced** - with the aim to identify anomalous elements and pathway finder elements that can be indicative of deeper mineralisation concentrations
  - **Both Geophysical and geochemical programs will target the old workings at Gulf Creek** - plus the extended Phase 2 target areas of Big Bend, Western, Eastern and North Western
  - **Phase 1 drilling scheduled this quarter**
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### **Brett Hazelden, Managing Director, commented:**

*"OD6 has hit the ground running in 2025 at Gulf Creek.*

*This new geophysical survey is being undertaken to identify volumes of potentially conductive massive sulphides to complement the areas of already identified strong magnetics that potentially contain high-grade copper associated with massive magnetite-sulphide mineralisation. The work is aimed at identifying high priority drill targets with Phase 1 drilling set to commence this quarter.*

*We are also completing a surface geochemical soil sampling campaign across the same area to further identify anomalous element assays that can help identify and point to further mineralisation concentrations. "*

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## GULF CREEK COPPER PROJECT MINERALISATION

Two mineralisation styles associated with high-grade copper have been identified to date at Gulf Creek. It is notable that both units returned high-grade copper mineralisation -refer [ASX release 6 November 2024](#)

- **Massive Sulphide – which is likely conductive** (refer Figure 1)
- **Massive Magnetite Sulphide – which is magnetic** (refer Figure 2)

In fresh rock samples from the massive units, the base metal minerals observed included chalcopyrite ( $\text{CuFeS}_2$ ) and sphalerite ( $\text{ZnS}$ ) along with gangue minerals of magnetite ( $\text{Fe}_3\text{O}_4$ ) and pyrite ( $\text{FeS}_2$ ) with minor amounts of quartz and barite.

Each mineralisation style generally has its own discrete geophysical and geochemical characteristics that can be exploited by modern day exploration techniques to identify and target priority areas for drilling.

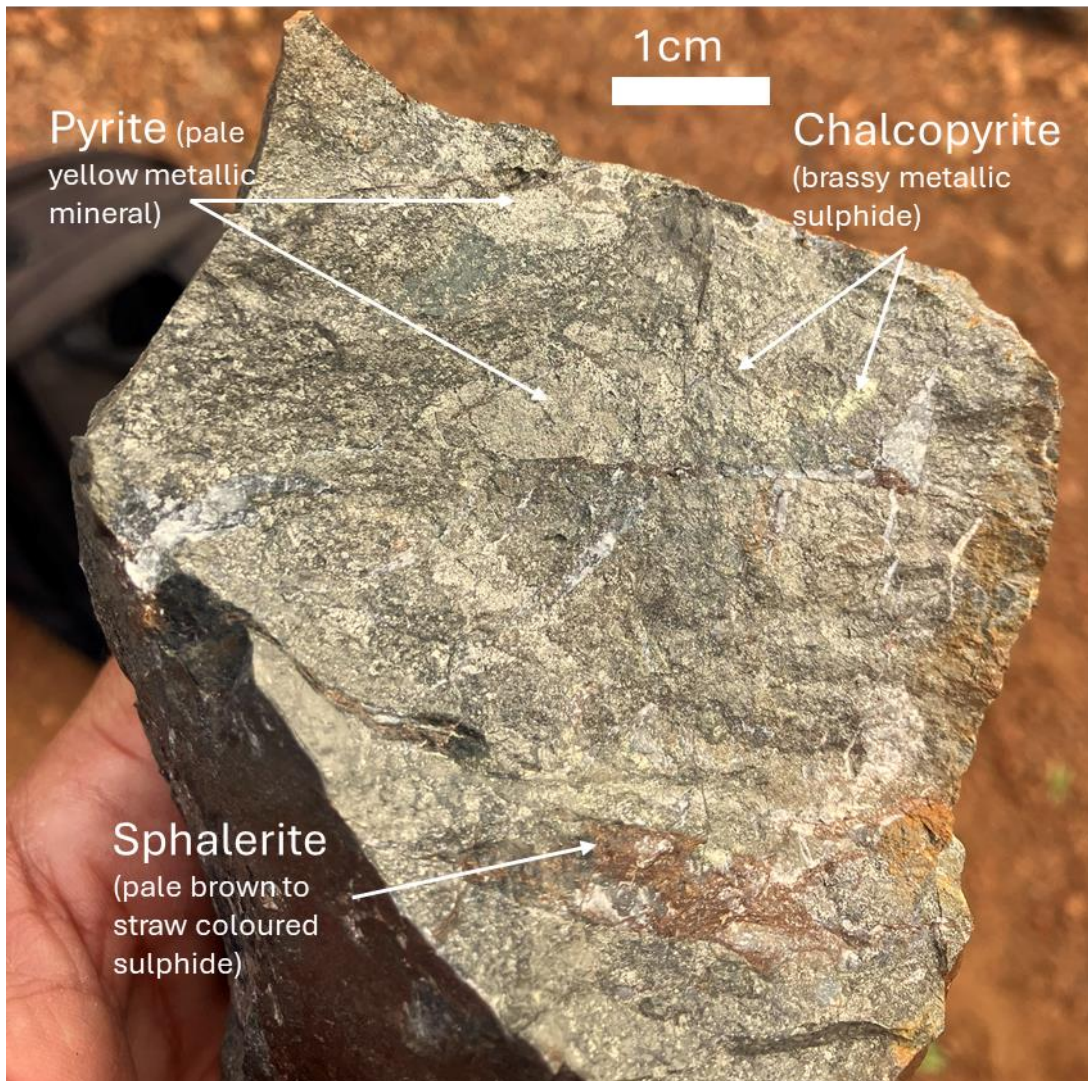
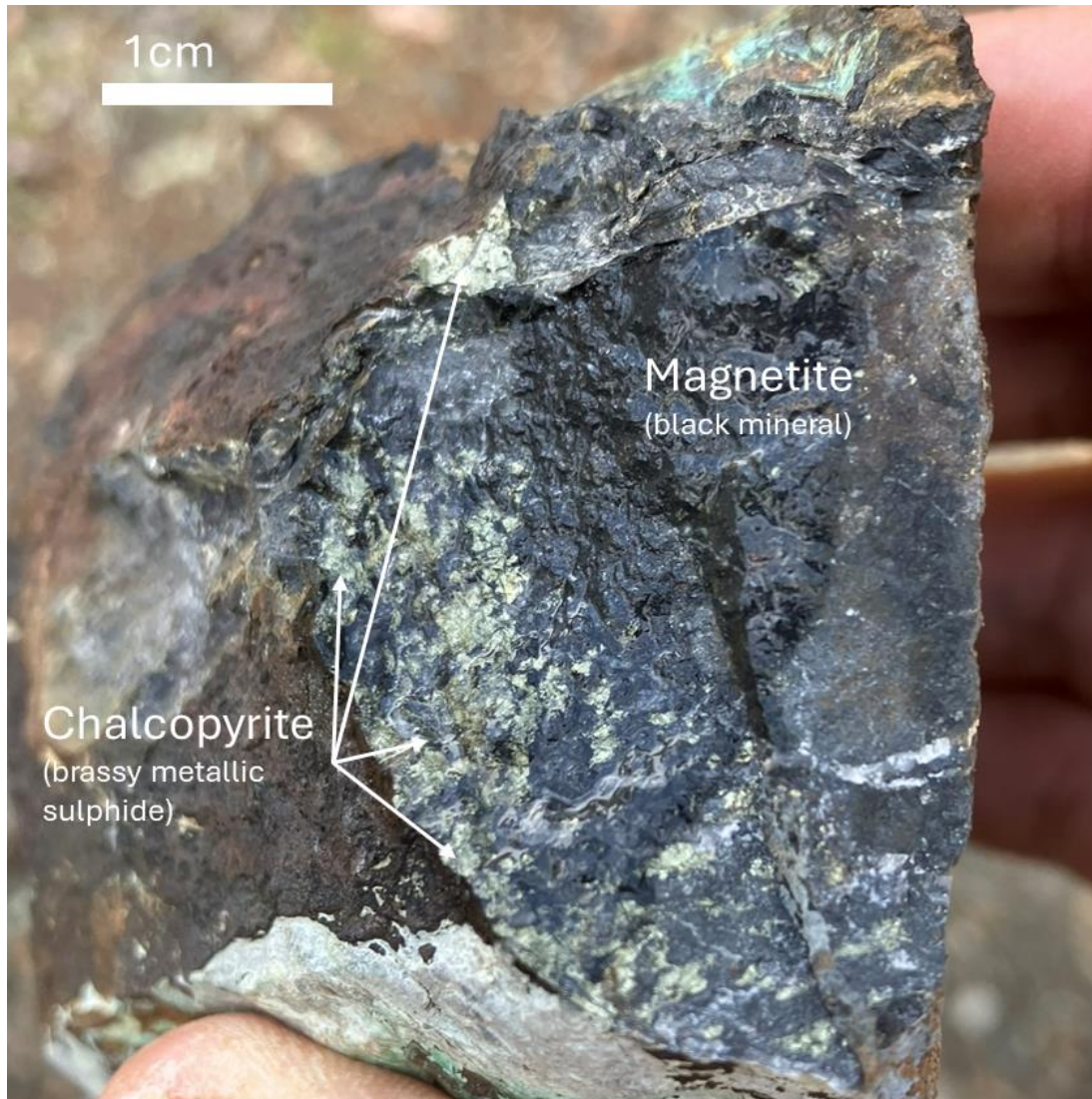


Figure 1: GC240907 massive sulphide with pyrite-chalcopyrite-sphalerite grading **0.85% Cu, 1.2% Zn**.



*Figure 2: GC240905 - massive magnetite and chalcopyrite grading 6.49% Cu, 2.1% Zn, 28.9% Fe, 441ppm Co, 1.66g/t Ag*

## **NEW GEOPHYSICS SURVEY**

The Company has already identified multiple **potential massive magnetic sulphide mineralisation** targets utilising geophysical inversion modelling of drone magnetic data at Gulf Creek – refer [ASX release 14 November 2024](#).

To complement this data and the associated targets OD6 is now undertaking an electromagnetic geophysical survey to identify conductors, which are potential accumulations of **massive sulphide mineralisation**. This is targeting around the old workings at Gulf Creek plus the extended Phase 2 target areas of Big Bend, Western, Eastern and North Western extensions.

GAP Geophysics has been engaged to complete a **Fluxgate Fixed Loop Electromagnetics (FLEM)** survey as outlined in Figure 3 below. Four transmission loops are to be located to the northeast and southwest of the main target zones, with receiver stations located 50m apart along NE-SW 200m spaced lines. Results are expected to be available in late January or early February.

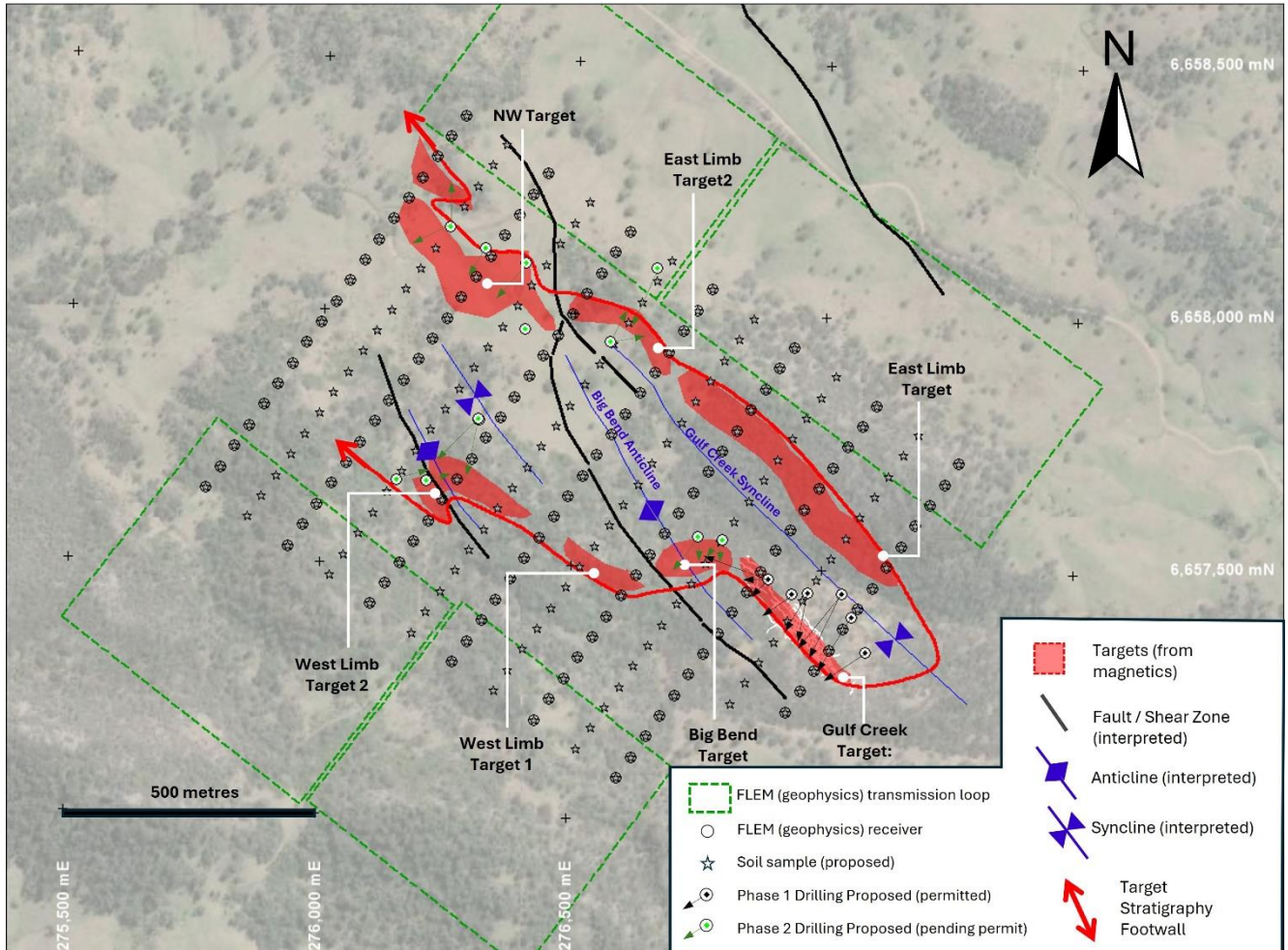


Figure 3: Plan view showing the location of the multiple target areas overlain by the planned geophysical, geochemical and proposed drilling locations

## GEOCHEMICAL SURVEY

Geochemical Soil sampling is also being undertaken with the aim to identify anomalous copper-zinc and pathfinder elements that can be indicative of mineralisation concentrations at depth. The soil sampling has been planned on NE-SW lines 100 metres apart with samples collected every 50m along the lines.

Soil sampling locations are shown in Figure 3.

Results are expected to be available in February.

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## LOOKING FORWARD

The Company is currently preparing forward work programmes including:

- Tenure Transfer process expected to be complete this quarter.
- FLEM Geophysical results.
- Surface geochemistry results.
- Field reconnaissance and further sampling planned this quarter.
- Integration of historic data and information into the geological database
- Phase 1 Drilling to commence this quarter.
- First drill assay results from Phase 1 drilling program at Gulf Creek.

### 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, tortious, 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).

### No new information

The information in this report relating to the Mineral Resource estimate for the Splinter Rock Project is extracted from the Company's ASX announcements dated 18 July 2024. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

Information that relates to historic mining at Gulf Creek, and the mineralised sample assay results is extracted from the Company's ASX announcements dated 30 October 2024 and 6 November 2024 respectively. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the exploration potential continue to apply.

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

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## About OD6 Metals

OD6 Metals is an Australian public company pursuing exploration and development opportunities within the critical minerals sector, namely rare earths and copper. and favourable power and reagent costs.

### Copper

The Company is also looking to advance the proposed acquisition of the **Gulf Creek Copper-Zinc VMS Project** located near the town of Barraba in NSW, Australia.

Gulf Creek was mined at around the turn of the 20th century and was once regarded as the highest grade copper mine (2% to 6.5% Cu) in NSW until its closure due to weak copper prices in 1912. Very little exploration has occurred at the project in over 100 years, with OD6 aiming to apply modern day exploration technologies.

Mineralisation is associated with magnetite, with geophysics showing significant greenfields and brownfields exploration potential exists with over >3km of untested strike in the immediate mine-stratigraphy, and over >10km across the tenement.

### Rare Earth

OD6 Metals 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.

The Company released a Mineral Resource Estimate (MRE) for Splinter Rock in May 2024, confirming that the project hosts the largest and highest-grade clay-hosted rare earths deposit in Australia with a Indicated Resource of 119Mt @ 1,632ppm TREO and a Inferred Resource of 563Mt @ 1,275ppm TREO with an overall ratio of ~23% high-value Magnetic Rare Earths (MagREE).

**OD6 Metals believes that Splinter Rock has all the hallmarks of a world class rare earths project with a conceptual development which utilises the large and high-grade Splinter Rock resource to support a long-life REE operation supported by a low strip ratio**

### Corporate Directory

Managing Director	Mr Brett Hazelden
Non-Executive Chairman	Wayne Bramwell
Non-Executive Director	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

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