

16 November 2022

Enterprise Metals resumes 100% Control of Doolgunna Copper-Gold Project

Enterprise Metals Ltd (“Enterprise”, the “Company”) (ASX: ENT) is pleased to advise shareholders that the Company has resumed 100% unencumbered control of the Doolgunna copper-gold project.

Sandfire Resources Limited (ASX: SFR) has advised the Company of a decision by Sandfire to withdraw from the Doolgunna Farm In Agreement (the “Agreement”) signed in October 2016 between Sandfire and Enterprise.

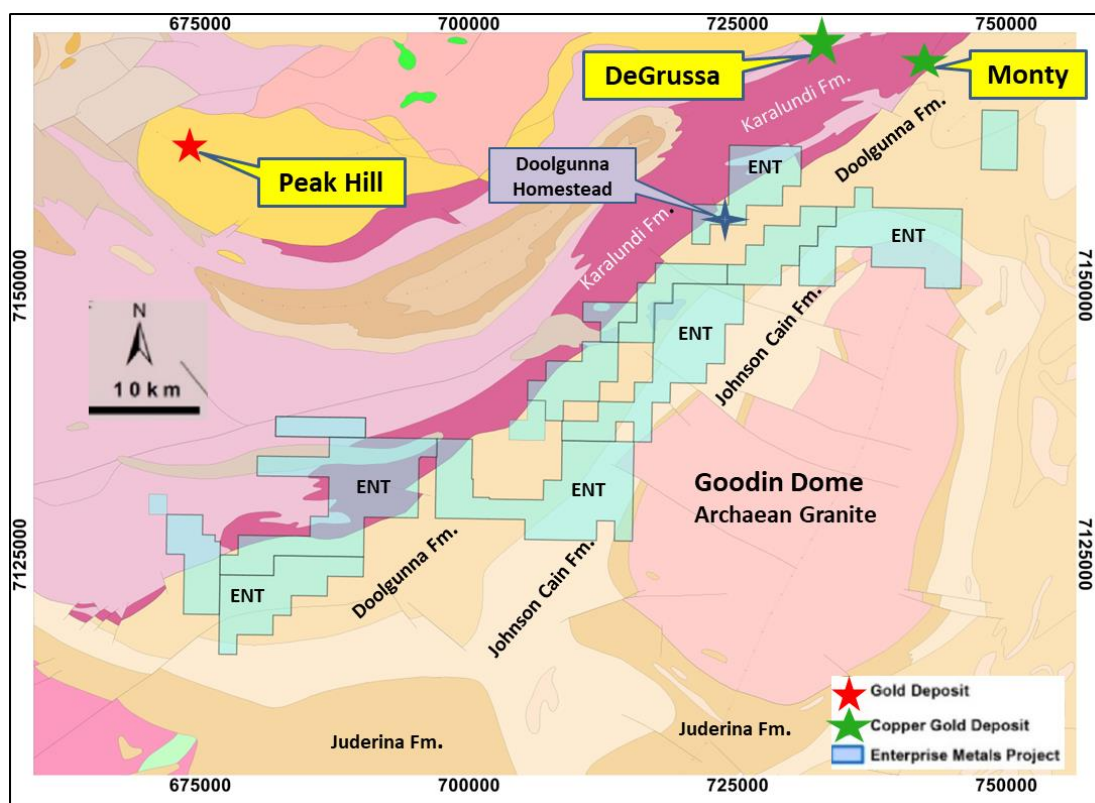
Sandfire has confirmed that it is prepared to work cooperatively with Enterprise and provide all reasonable assistance to assist with an orderly transition.

Enterprise is pleased to resume full control of the Doolgunna Project, given that Sandfire is progressively winding down its nearby DeGrussa operations and looking to divest its tenement position in the district.¹ Enterprise will now have a free hand in taking Doolgunna forward, and it is considering options for progressing the Project for the benefit of its shareholders. The Company is considering options for new JV arrangements, as well as the potential for further exploration as sole owner, and will update shareholders in due course.

The Company thanks Sandfire for advancing exploration of the Doolgunna project, and in particular the extensive exploration they have undertaken on the Karalundi Formation, which hosts Sandfire’s 100% owned DeGrussa and Monty deposits.

Regional airborne and ground geophysical surveys undertaken by Sandfire during the earn in period are currently being appraised for gold and base metal targets in the sedimentary sequences between the Archaean Goodin Dome and the Karalundi Fm. Refer Figure 1.

Figure 1. Enterprise’s Doolgunna Landholdings over Regional Geology



¹ See page 31 of Sandfire’s September 2022 Quarterly Presentation dated 20 October 2022.

About the Doolgunna Project

The Doolgunna Project covers over 60km of strike of the southern boundary of the Bryah Basin and the northern part of the Yerrida Basin. In particular, Enterprise's landholdings contain the basal (shallow) parts of the Proterozoic Yerrida Basin, which consists of the Johnson Cairn and Juderina Formations. These formations overlie Archaean granitic basement (the Goodin Dome) along the southeast margin of Enterprise's landholdings. These two formations are separated from the Bryah Basin and Narracoota Volcanics sequence to the north by the Goodin Fault, a major deep seated structure.

A number of gold prospects and base metal occurrences have been identified associated with the Juderina Formation in GSWA databases. Exploration by Enterprise pre-farmout to Sandfire also located SEDEX style base metal mineralization in the Johnson Cairn-Juderina and Doolgunna Formations. (Refer Enterprises' ASX releases 8 July 2014, 30 April 2015, 6 October 2015 and 24 December 2015).

Enterprise identified anomalous levels of base metals and pathfinder elements associated with sulphides hosted in carbonaceous shales interpreted to be Johnson Cairn Formation. Long intervals of sediment hosted, laminated and massive / semi massive largely pyritic sulphides were intersected in Enterprise's drilling. The abundance of pyrite mineralisation in the carbonaceous shales of the Johnson Cairn Formation was regarded as an important indicator of the prospectivity of the Johnson Cairn Formation.

Following Sandfire's withdrawal, Enterprise sees an opportunity to continue with exploration for gold and base metals in its own right or with a joint venture partner along the basal units of the Yerrida Basin and the margins of the Godin Fault. Refer Figure 1 for location of Enterprise's Doolgunna tenements and regional geology.

About Enterprise Metals Ltd

Enterprise Metals has a number of exciting exploration projects in Western Australia that are prospective for lithium, gold, copper, nickel and potash. Its major and active programs are summarised below, and project locations are shown in Figure 2 overleaf.

Bullfinch North Li, Au, Ni-Cu-Co

Enterprise has an Option Agreement with Nickgraph Pty Ltd to purchase the Bullfinch North Project in the Southern Cross Greenstone Belt of WA on or before 24 May 2024. The project stretches from Bullfinch in the south to Trough Well in the north and covers approximately 50 strike km's (238 km²) of granted tenements over Archaean greenstone lithologies prospective for orogenic gold deposits, pegmatite-hosted lithium, high-grade massive sulphide nickel-copper deposits and iron ore.

In early 2022 Enterprise mapped multiple pegmatites along the Mt Jackson Road immediately north of the Radio Gold Mine. (Refer ENT: ASX release 30 May 2022). Grid based soil sampling for lithium and associated minerals south of the intersection of the Mt Jackson Rd and the Golden Valley Rd is in progress.

Murchison Zn-Cu, Au

The wholly owned Murchison Project is centred 30km north of Cue and 35km north-east of the Big Bell Gold Mine and forms a semi-contiguous landholding of approximately 760km² over a buried Archaean greenstone belt. Historic exploration has indicated potential for volcanic hosted massive sulphide (VHMS) copper/zinc deposits.

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In September 2022 Enterprise flew a detailed low-level helicopter borne electro-magnetic (EM) survey over the Eastern Volcaniclastic sequence north of Cue, which contains the Wattagee and Emily Well copper-zinc horizons. Results of this survey are currently awaited.

Mandilla Au, Li

Enterprise has an Option Agreement with Mrs Vera Allen to purchase her Mandilla Exploration Licence 15/1437 on or before 8 April 2023. The project is located ~20 km south of Kambalda on the eastern margin of the Mandilla Syenite. In 2021 a “slimline” RC drill program of 21 holes was completed to test a number of anomalous 4 metre composite gold intersections from Enterprise’s previous aircore drilling program.

In 2022 Enterprise retrieved and assayed 4 metre and 1 metre RC sample pulps where pegmatites had been geologically logged. Laboratory results included 12 metres at 0.45% Li₂O from 52 metres depth in MERC010, with a peak assay of 0.97% Li₂O in MERC011 from 48-50 metres, within a longer interval of 8m @ 0.3% Li₂O and 7m @ 0.4% Li₂O in MERC011 (from 36m and 48m depths respectively). Lithium in weathered and fresh pegmatites remains open in all directions. (Refer ENT: ASX release 26 October 2022). Further RC drilling to extend the strike and dip of the pegmatites is planned.

Fraser Range Ni-Cu-Co

The Fraser Range Project is prospective for the discovery of Nova-Bollinger-style high-grade nickel-copper sulphide mineralisation. The project is located within the Albany-Fraser Orogen approximately 100km east of Norseman and covers in excess of 400km² in a prospective portion of the Fraser Range. Constellation Resources Ltd (ASX: CR1) holds a 70% interest and manages and wholly funds exploration on the three granted Orpheus Joint Venture tenements (E28/2403, E63/1281 and E63/1282) and one exploration licence application (E63/1695).

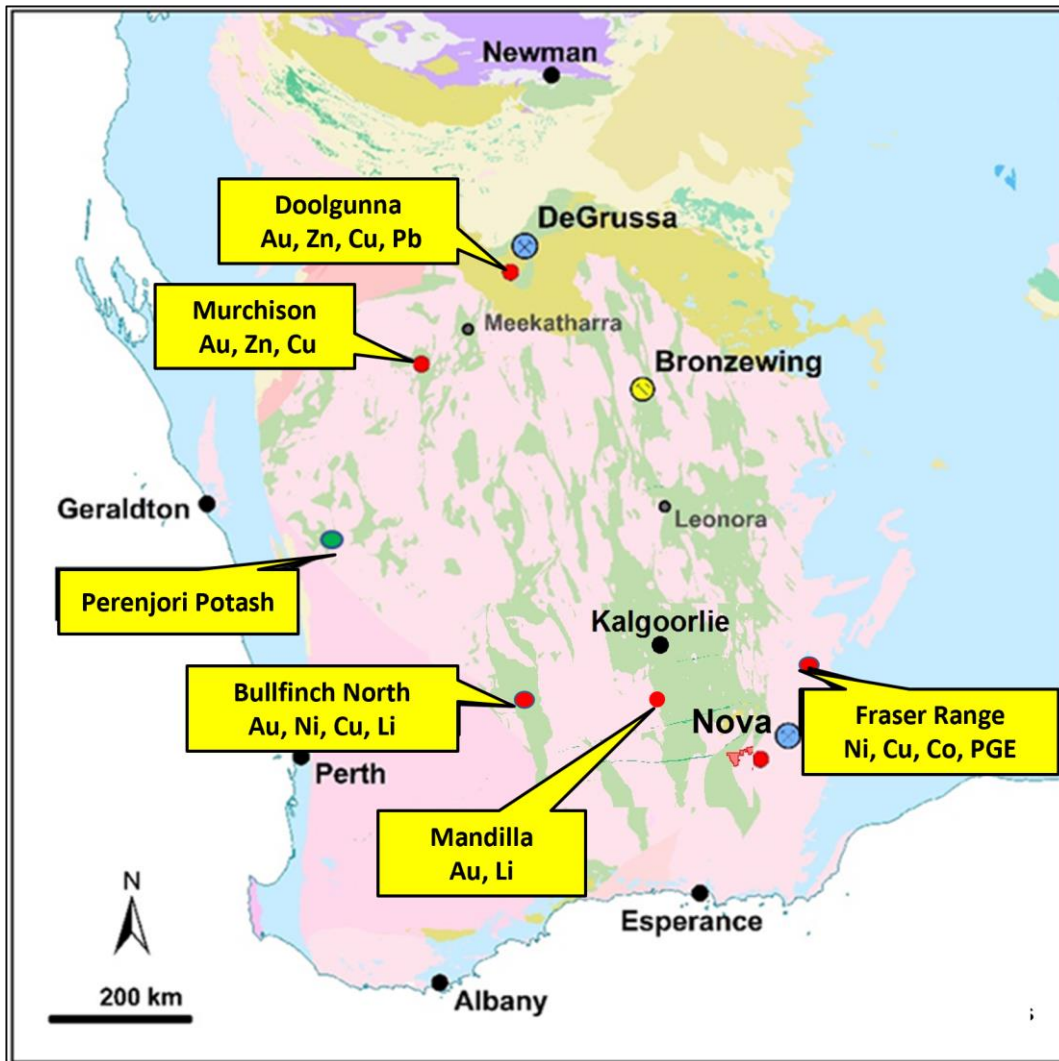
Enterprise holds a 30% free carried interest to completion of a bankable feasibility stage (BFS) on any discovery. The northern most Exploration Licence 28/2403 lies approximately 25km SSW of Legend Mining Ltd’s (ASX: LEG) Mawson nickel sulphide discovery. Constellation has reported that aircore (AC) drilling results to date have defined a highly prospective nickel-copper cobalt-PGE geochemical target that is interpreted to be over three kilometres in strike and up to 300 metres wide, named the “Eyre Anomaly”.

Perenjori – Potash

Exploration Licence 59/2678 (113 km²) was granted to Enterprise in June 2022 and one tenement application ELA70/6038, (161 km²) remains ungranted. The granted tenement and tenement application cover ~50 km of ancient (+34 million years old) drainage systems which have their headwaters in the central part of the Yilgarn Craton. An airborne EM surveys previously conducted by Enterprise provided evidence of deeply incised (100m - 150m depth) palaeo-valley lying buried below the broad shallow valleys NNE of Perenjori.

Enterprise plans to explore the palaeo-valleys for *brine deposits* using aircore drilling methods. The goal is to produce Sulphate of Potash (K₂SO₄ or SOP) via boreholes and surface evaporation (and processing) outside of salt lakes, within PVC lined evaporation ponds. The Project area is well serviced with a 245 km railway from Perenjori to the port of Geraldton and has established infrastructure in the nearby wheatbelt town of Perenjori. Refer Figure 2 overleaf for location of Enterprise’s projects.

Figure 2. Project Locations- Enterprise Metals Ltd



This announcement has been approved for release by the Board of Enterprise Metals Ltd.

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