

ASX Announcement

30 November 2023



AIRBORNE SURVEY UNDERWAY AT GASCOYNE EAST PROJECT GASCOYNE REGION – WESTERN AUSTRALIA

Odessa Minerals Limited (ASX:ODE) (“Odessa” or the “Company”) is pleased announce that it has engaged MAGSPEC Airborne Surveys Pty Ltd (MAGSPEC) to conduct an airborne magnetic and radiometric survey over the Company’s +2,100 square kilometre tenement package at its Gascoyne East Project in the Gascoyne region of Western Australia.

The program will see a total of 24,846 line-kilometres flown at 100m spaced lines and nominal flight height of 40m. The flying program is now 59% completed and it is estimated to be finished around the middle of December.

David Lenigas, Executive Director of Odessa, said:

“Very little historic exploration has been conducted on this highly prospective piece of ground. This high-resolution airborne survey for magnetics and radiometrics over the entire +2,100 square kilometres (see figures 1-3) will provide us a clearer picture of target areas for lithium, rare earths, base metals, gold and graphite. On completion of the flying, the data will go to processing and interpretation and results from this should be available in January. On the back of these results, we plan to refine our drilling targets and look to drill in Q1 next year.”

Gascoyne East Project

The Gascoyne East Project consists of 2,108km² of exploration licences and covers the southern margin of the Edmund Basin and metamorphic core of the Proterozoic Capricorn Orogen. The Project encompasses the confluence of major, metal-endowed trans-lithospheric structural corridors (including the Ti-Tree, Errabiddy, Chalba, Cardilya, Mt Clere and Hibernian South Fault/Shear zones). The Project is also transected by a recently-recognised deep crustal stability edge that is a loci for mantle-derived fluid upwelling and heat-driven hydrothermal processes. These tectonic edges are associated with 85% of large-scale sediment-hosted base metal deposits globally and is strongly correlated with porphyry, IOCG and Pb-Zn deposits.¹

The Project encompasses the Gascoyne-Glenburgh Terranes and Yarlalweelor Complex, which have undergone significant deformation during the Ophthalmian, Glenburgh and Capricorn Orogenies. Critically, the basement pre-dates known lithium pegmatite and rare earth events, such as the Mutherbukin event (carbonatites) and Edmundian Orogeny (Yinnetharra LCT pegmatites). The trans-lithospheric structures that converge at the Project (Ti-Tree, Errabiddy, Chalba, Mt Clere) are long-lived crustal sutures binding accreted Paleoproterozoic terranes to the Archaean Yilgarn Craton, offering favourable fluid conduits spanning multiple, overprinting metal-endowed events.

As such, the Project offers a unique geological setting of multiple metal-rich structural events converging at the location. Successful exploration has been conducted across the broader region, yet the Gascoyne East Project has remained unexplored due to 90% of the tenure being concealed by transported cover.

¹ Hoggard, M.J., Czarnota, K., Richards, F.D., Huston, D.L., Jacques, A.L., Ghelichkhan, S., Global Distribution of sediment-hosted metals controlled by craton edge stability. *Nature Geoscience*, (manuscript accepted, May 2020).
<https://doi.org/10.31223/osf.io/2kjvc>

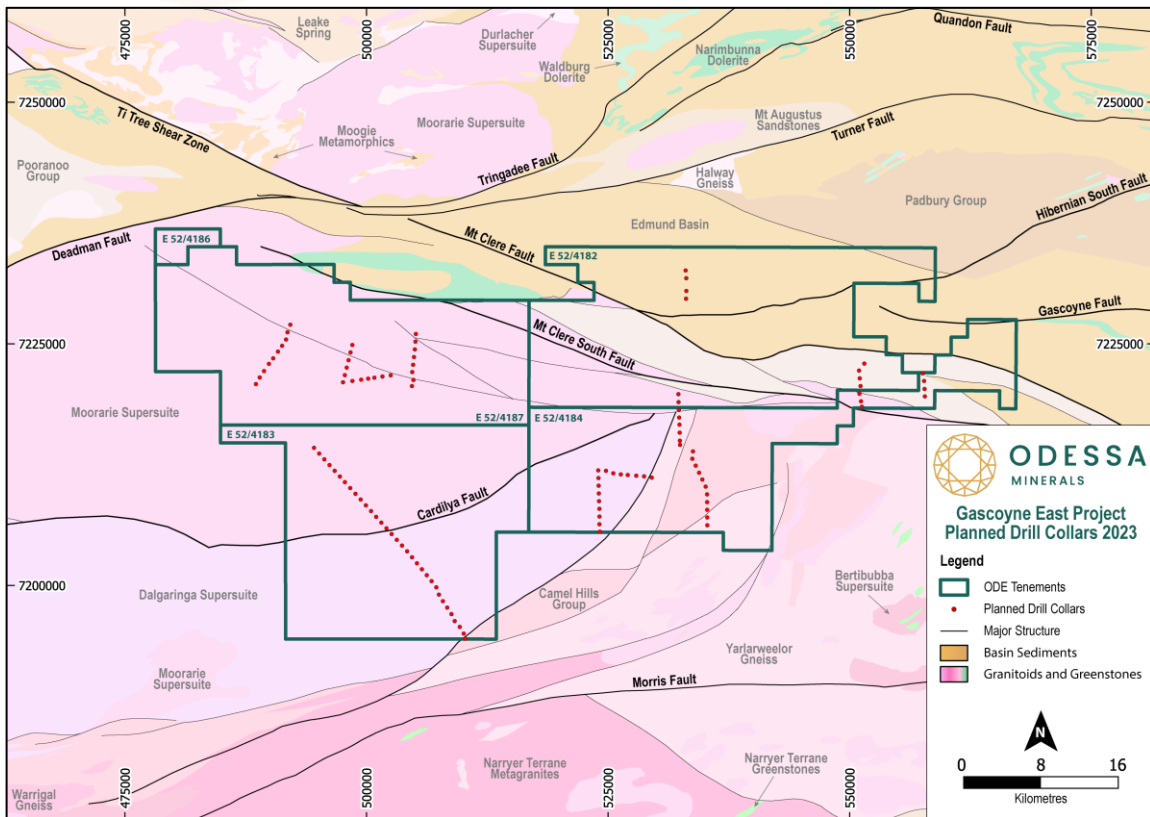


Figure 1: Gascoyne East Project planned drilling underlain with 1:500k GSWA bedrock geology and major structures.

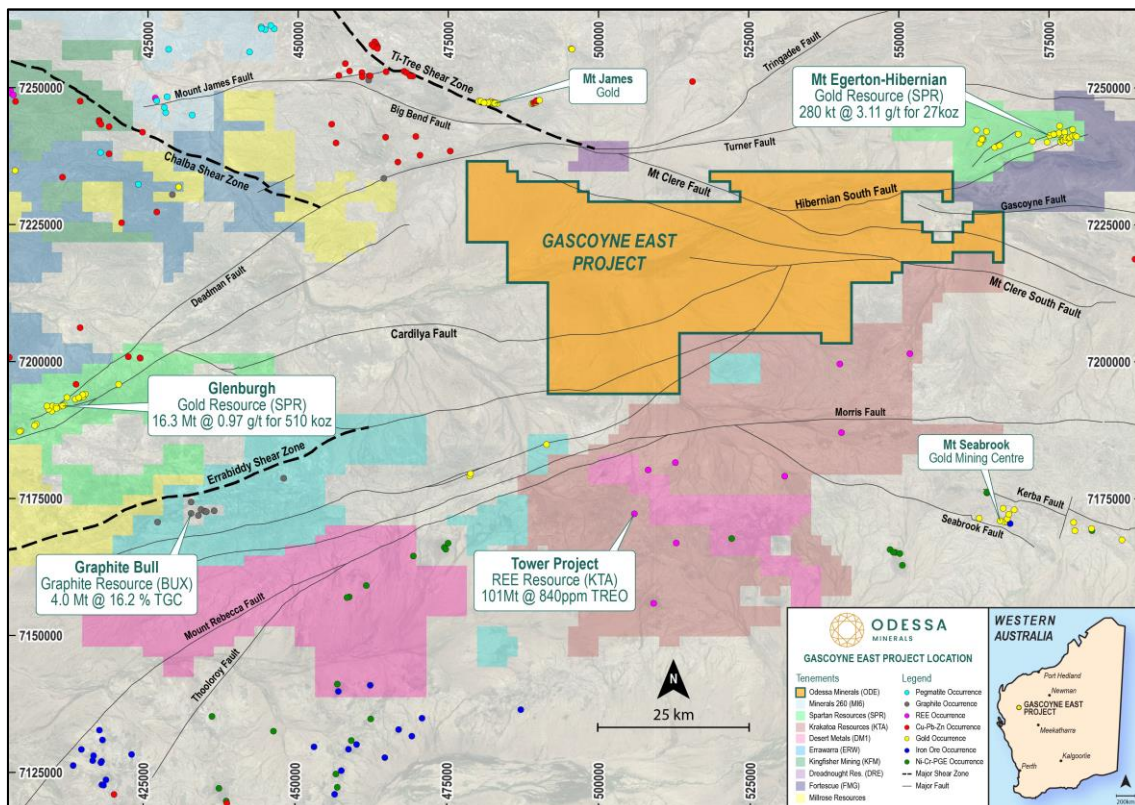


Figure 2: Gascoyne East Project within a regional context compared to other known mineral occurrences.

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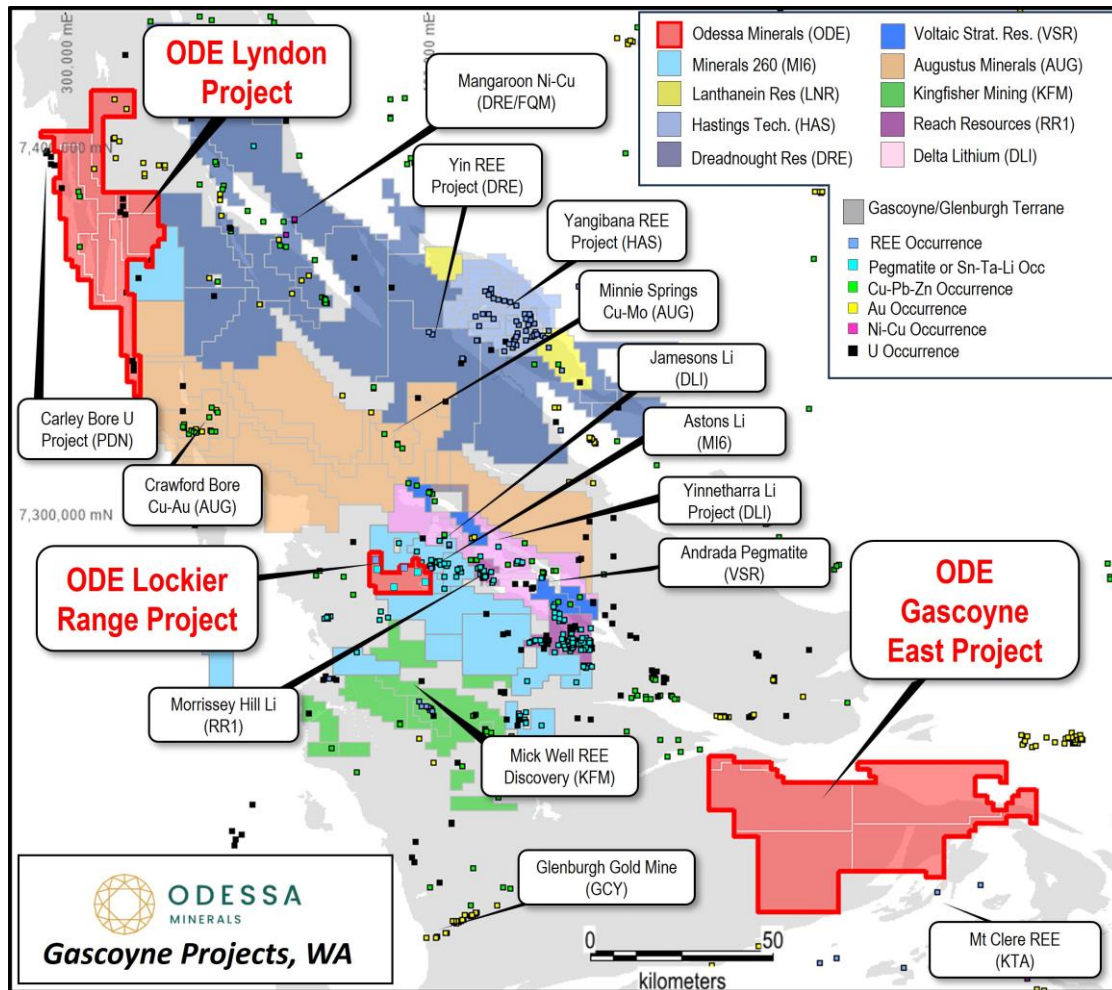


Figure 3: Odessa Minerals regional Gascoyne Project location map overlain with Geological Survey WA Minedex Occurrences.

ENQUIRIES

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About Odessa Minerals

Odessa Minerals Ltd is an ASX listed company (Ticker: ODE) that holds exploration licenses over 3,000 sq km of highly prospective ground in the highly sought-after Gascoyne region of Western Australia. Odessa's Projects are located in close proximity to significant recent lithium/pegmatite discoveries and lie in a north-south corridor of recent world class REE carbonatite discoveries.

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