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Work Program Details

Geological Rationale & Nature of Targets

Regolith hosted rare earth element (REE) deposits, also called ion-adsorption REE deposits are distributed over a number of provinces in Southern China. These deposits are estimated to contain more than 1.3Mt of rare earth oxide (REO) resources, with ore grades ranging from 0.05 to 0.2 wt.% REO. Almost 35% of Chinas REE production is from this type of deposit. Li et al, Journal of Asian Earth Sciences Volume 148, 15 October 2017, Pages 65-95

Within the application area - It is interpreted that limestone, deposited regionally during the Miocene, and which abuts the highly weathered Glenelg River Complex (GRC) of metamorphic and intrusive rocks, has provided a physical and geochemical pathway to carry lanthanide ions released/dissolved during the deep weathering of the GRC, - in solution - until their interaction with the very fine particles of clay, lying above the limestone, allowing for the adsorption of those ions onto the clay.

The suggested potential clay host of ionically adsorbed rare earth elements is regionally extensive across the EL application area and forms the target for planned exploration activities.
Nature of the work to be undertaken

Exploration work will initially focus on gathering existing data and/or drill core samples for analysis and determination of the existence of the method of mineralisation proposed, along with further review of the literature describing the occurrences of this type of mineralisation and its economic exploitation. This phase will be followed by targeted drilling and collection of samples for additional analysis and testing to determine whether economic concentrations of the mineralisation can be identified. Finally, drilling and sampling sufficient to establish an initial mineral resource estimate of this type of mineralisation will be completed.

Schedule for the exploration program

Year 1 – Collection of existing data and/or drill core available to verify the method of mineralisation proposed within the application area. Review of the literature describing the occurrences of this type of mineralisation and its economic exploitation.

Year 2 – Drilling and sampling to provide samples for analysis to determine whether economic concentrations of the mineralisation can be identified.

Year 3 - Drilling and sampling to provide samples for analysis at a density sufficient to establish a mineral resource estimate for this type of mineralisation.