

Understanding and Assessing Recent Rare Earth Discoveries. Dr Phillip Hellman

“It is likely that relatively soluble "ionic clay" type deposits are more widespread than is currently realised. Although of lower grade, these may prove considerably more attractive than higher grade deposits containing REE-bearing minerals that require aggressive leaching conditions and high capital costs.”

This prophecy was heard at a SMEDG meeting in 2017* providing yet another reason to come and join SMEDG.

The exciting discoveries of low grade easily recoverable rare earth element (REE) in Australia and elsewhere are underpinned by the ability of REE to be mobilised and re-deposited. The experience gained in Australia of using the regolith as an exploration medium will continue to result in the discovery of more ionic-type deposits. It is likely that secondary REE deposits that are not ionically bonded and not clay-hosted will also be discovered.

This talk will discuss some recent primary and ionic adsorption discoveries and will provide some suggestions for critically assessing emerging rare earth projects.

Phillip Hellman has worked on a variety of rare earth projects as well as the fundamental geochemistry of rare earth behaviour.

This talk is dedicated to the memory of Rob Duncan who passed away in 2021 and whose name lives on with the “Duncan Deposit” at Mt Weld, Western Australia.

***2017 Meeting Links**

[Rare Earth Element Deposits. Aspects of their evaluation,diversity, geochemistry and genesis.](#)

[Hellman and Duncan REE Paper 2017](#)

[Meeting photos here](#)

