

NEWS RELEASE 22-27

December 15, 2022

## CHATHAM'S PACIFIC RARE EARTHS APPLIES FOR ANOTHER SELENIUM EXPLORATION PERMIT

WELLINGTON New Zealand – Chatham Rock Phosphate Limited (TSXV: "NZP" and NZX: "Chatham" or the "Company") continues to enlarge its resource asset base with another selenium prospect in Queensland.

Knowing the importance of the trace mineral selenium for plant growth and animal health, we have decided to apply for an exploration area in another part of Queensland identified as having significant accumulations of selenium.

The exploration area near Hughenden in northern Queensland, with outcropping beds of the seleniferous Toolebuc Formation limestones, is one of only two recognised hotspots in Australia for highly seleniferous soils.

The other hotspot is at Tambo where the Company already holds EPM28606 covering 196 sq km.

The Queensland Department of Resources has accepted our application for an Exploration Licence EMP28676 over an area of 19.6 sq km in the Richmond-Hughenden region of North Queensland nominating selenium as the target.

The area that is centred on the local grazing/farming property of "Gunnerside" Station, is transected by the Flinders Highway and the Townsville – Mt Isa rail line, and is well served by local infrastructure in the town of Hughenden 20km east of the area.

The shallow dipping and outcropping beds of Toolebuc limestone are up to 20m thick.

There is extensive existing geological data to the north and west of our EMP28676, mostly from current and past vanadium exploration.

The exploration program will commence with soil sampling to identify drill sites.

## The Importance of Selenium

Selenium was discovered in 1817 by Jons Jakob Berzelius of Sweden. Named from the Greek word meaning "moon," selenium is a metalloid element that occurs in at least three forms: a gray metallic form, a deep red or black powder, and a red crystalline form.

Selenium conducts different amounts of electricity, depending on how much light is hitting it. It also can convert light to electricity. Consequently, it is used in photoelectric cells, light meters, TV cameras, photocopiers, solar cells and semi-conductors. Selenium can convert AC electric current to DC current and is used in such converters. It is the active ingredient in dandruff-prevention shampoos and is a cutting agent in rubber. Selenium can remove colour from glass, or it can add a red colour to it. It is also used in alloys, especially with steel.

Hence selenium is a key requirement for many aspects of the technology we routinely use in our daily lives.

Biologically, selenium is also necessary for human life. Its role is that of a cleanser or protector; it shields against cancers and other diseases by scavenging for free radical oxidants and some heavy metals. Natural selenium deficiency in rocks and soils may be related to the incidence of stroke in humans, and excess selenium can cause deformities and disease in animals.

As many soil types are selenium deficient in Australia and New Zealand, selenium needs to be either added to the soil directly, indirectly in fertilizers or fed directly to stock by way of drenching or lick blocks.

Selenium deficient soils are prevalent in Queensland as well as in New South Wales and West Australia

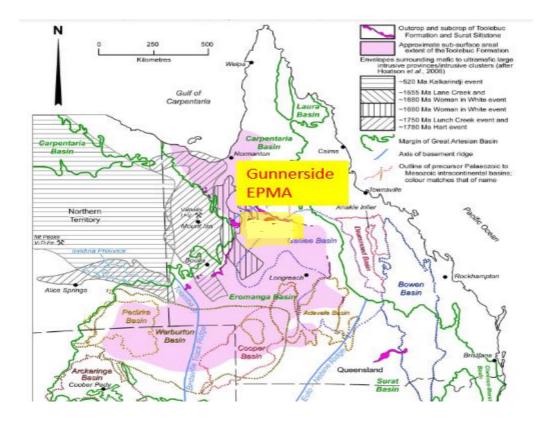
The inclusion of selenium in the Queensland Government schedule of New Economy Minerals recognises the significance of the mineral to the State.

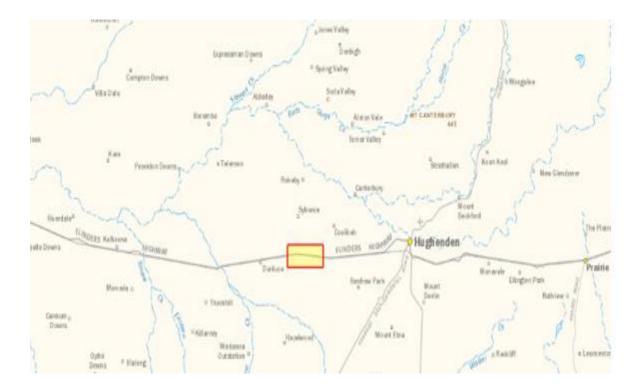
Selenium minerals are rare, and although selenium-rich ores exist, few are mined exclusively for the element. Most selenium is obtained as a by-product of copper ore processing. Selenium is occasionally found in pure form. It occurs in the rare minerals clausthalite and crooksite. Despite the name, the mineral selenite actually contains no selenium. Some selenium is mined in Japan, Canada, United States and Belgium.

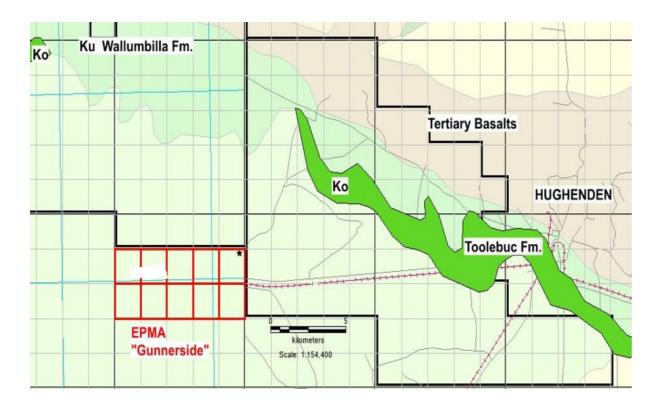
## **Pacific Rare Earths**

Chatham's wholly owned Australian subsidiary Avenir Makatea Pty Ltd, trading as Pacific Rare Earths, made the application.

Pacific Rare Earths Limited (PRE) is the umbrella company for our existing rare earth elements projects at Korella North and Korella South in Queensland, the Chatham Rise project offshore New Zealand and now our two selenium projects at Hughenden and Tambo.









## For further information please contact:

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Neither the Exchange, its Regulation Service Provider (as that term is defined under the policies of the Exchange), or NZX Limited has in any way passed upon the merits of the Transaction and associated transactions, and has neither approved nor disapproved of the contents of this press release.

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