



**4 May 2020**

## **Pensana granted major new rare earth exploration project**

Pensana Metals Ltd (ASX: PM8) is pleased to announce the grant of a new exploration licence prospective for NdPr rare earth mineralisation adjacent to its Longonjo Project in Angola.

The 7,456 square kilometre Coola Project lies 16 kilometres from Longonjo and contains two known carbonatites with reported NdPr rare earth mineralisation.

In addition, the project hosts five additional alkaline intrusive complexes and five strong geophysical anomalies which collectively represent an immediate and wide range of very well defined 'walk – up' exploration targets prospective for NdPr and other rare earths.

- The two carbonatite complexes, Coola and Monte Verde, are confirmed as mineralised through academic work identifying NdPr rare earth mineralisation in rock samples;
- The Coola and Monte Verde complexes have never been commercially evaluated and a significant portion of each lie beneath shallow soil cover;
- Five additional alkaline intrusive complexes, with geological systems prospective for heavy and other rare earths have been identified within the licence area;
- A further five strong geophysical anomalies have been identified that could reflect additional carbonatite or alkaline complexes.

The large project area is easily accessible and is well located close to established road and rail infrastructure.

**Chief Operating Officer Dave Hammond commented:**

*“Our main focus is on completing the current programme at Longonjo and reporting an upgraded Mineral Resource estimate for the DFS, which is expected to significantly extend the mine life of the project.*

*Having received the Mining Licence for Longonjo our plan is to capture and test the high potential brownfield opportunities within trucking distance of the proposed treatment plant which have the potential to increase overall production.*

*The Coola and Monte Verde carbonatite complexes are of similar size to Longonjo and have been identified as being rich in NdPr mineralisation.*

*We are very much looking forward to getting on the ground with the first round of exploration on these exciting new targets.”*

## Technical Report

The new project lies just 16 kilometres north of the Longonjo licence and so is similarly located close to modern road and rail infrastructure that links the project to the Atlantic port of Lobito. Low cost hydro power is available at Caala, located 40 kilometres to the west and the provincial capital of Huambo lies about 60 kilometres to the west.

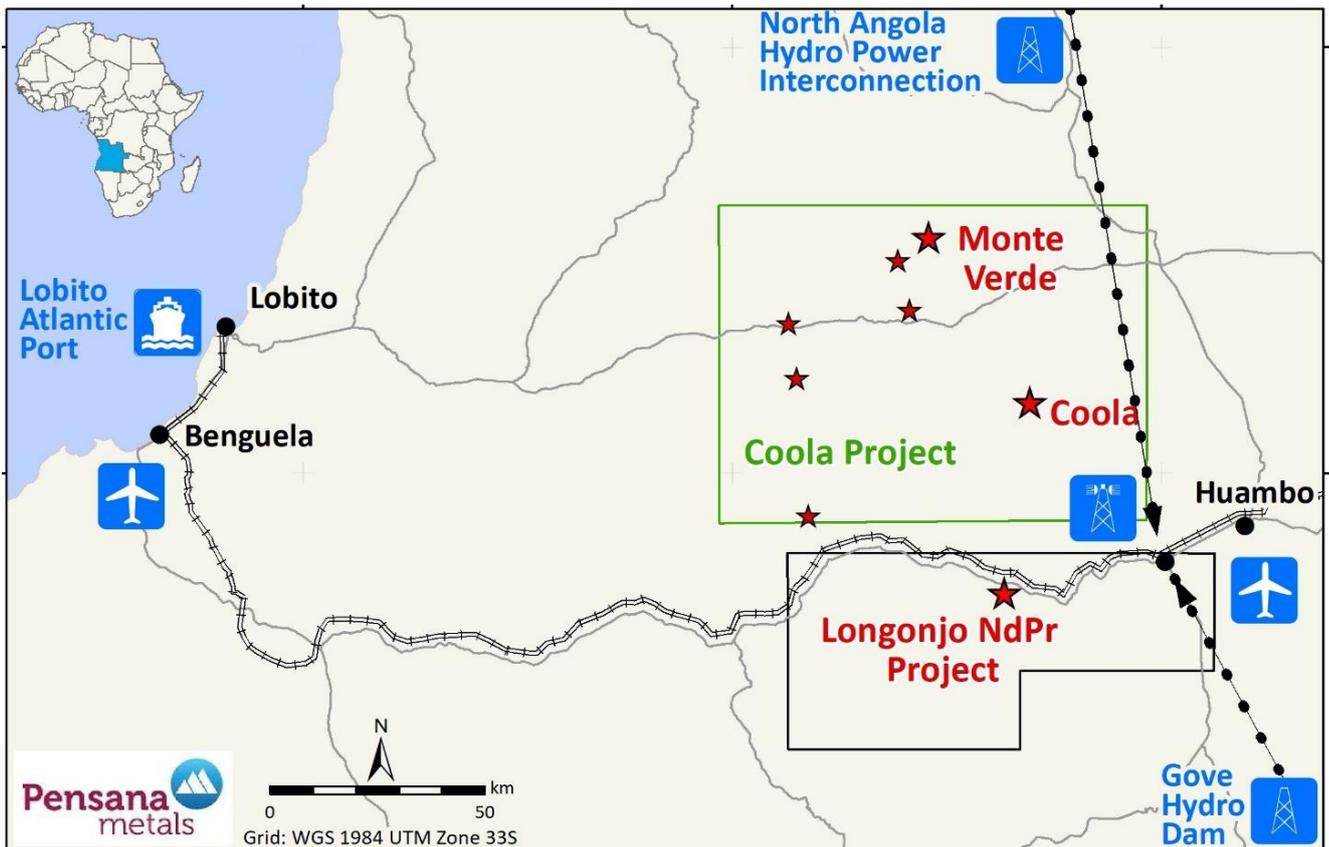


Figure 1: Location of new Coola Licence and known mineralised carbonatites and other alkaline complexes prospective for rare earths adjacent to Pensana's Longonjo Project and established modern infrastructure

Two known carbonatites with reported NdPr rare earth mineralisation, Coola and Monte Verde, together with five additional alkaline intrusive complexes and five strong geophysical anomalies represent immediate and well defined 'walk – up' exploration targets prospective for NdPr and other rare earths.

The Coola Project Prospecting Licence 059/02/01/T.P/ANG – MIREMPET/2020 covers an area of 7,456 square kilometres. Pensana holds a 90% beneficial interest in the licence with two Angolan partners each holding 5%. The licence was granted for a period of two years, renewable to 7 years.

## Rare Earth Mineralised Carbonatites

The Coola and Monte Verde carbonatites, like Longonjo, are intrusive or volcanic ring structures containing carbonatite rock and are known to be enriched in elements and minerals associated with rare earth mineralisation such as fluorite, strontium, barite, phosphorous and niobium. They are also the same Cretaceous age (135 million years) age as Longonjo and part of the same regional geological event.

Previous academic work on the three carbonatites identified rare earth enrichment from limited rock samples with the maximum values of **3.64% REO** from Coola and **0.93% REO** from Monte Verde, comparing well with the **1.41% REO** returned from Longonjo in the same study (Alberti et al., 1999).

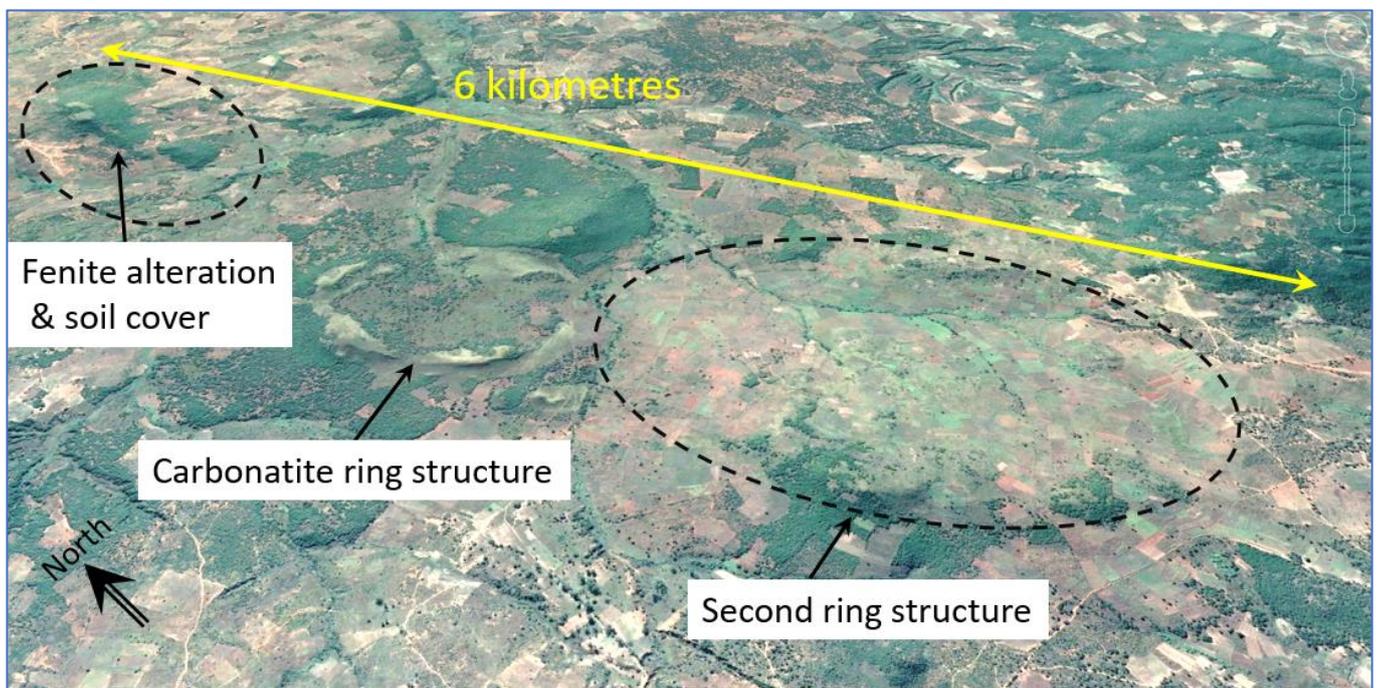


Figure 2: Angled view of the Coola carbonatite intrusive complex looking north east. Two ring structures and a third area of fenite (alteration associated with carbonatite intrusion) extend over 6 kilometres and are largely soil covered.

The Coola and Monte Verde carbonatites have not been commercially explored and, like Longonjo, much of the area is covered by a veneer of ferruginous soil. The Company plans to complete initial soil, rock and geological mapping, which if successful may rapidly define drill targets.

*Alberti A. et al., 1999: Geochemical characteristics of Cretaceous carbonatites from Angola, Journal of Earth Sciences.*

### Additional prospective targets

The Company has also identified five alkaline complexes (geological systems prospective for heavy and other rare earths) and five strong geophysical anomalies that have a signature similar to known carbonatites within the new licence area. These represent ten additional defined exploration targets that the Company looks forward to rapidly and efficiently evaluating for their rare earth potential through surface sampling alongside the Coola and Monte Verde carbonatite systems.

#### **Competent Persons Statement**

The information in this report that relates to geology and rare earth prospectivity is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australasian Institute of Mining and Metallurgy. David Hammond is the Chief Operating Officer and a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.